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August 2016 issue - No 62

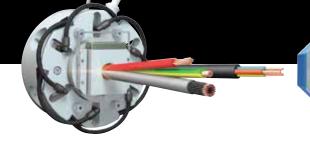
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# **EDITOR**

Future growth is very much on the agenda for one American company – WireCo.

The company has announced an equity investment as it bids to cut costs by \$240m. The investment will see WireCo refinance its capital structure and extend its debt maturities, reducing its leverage and annual interest expense significantly, and cutting its debt from \$840m to \$600m.

Annual interest expense is expected to be reduced by some \$20m. The full story can be found on page 11.

Faster, faster and faster is the order of the day for Google and a consortium of five other international companies who have funded a new trans-Pacific fiber optic cable system, which is now online and ready for service.

The 'Faster' system lands in Oregon, USA, and has two landing points in Japan, in the China and Mie prefectures. The cable delivers 60Tb per second bandwith across the Pacific and is believed to be the highest capacity undersea cable yet built. Full details are on page 14.

David Bell Editor

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#### NEWS

Editor David Bell david@wiredinusa.com

Features Editor (USA) Dorothy Fabian

#### Features Editor (Europe) Gill Watson

**Publisher** Caroline Sullens

#### **INTRAS OFFICES**

Europe: 46 Holly Walk, Leamington Spa Warwickshire CV32 4HY, UK Tel: +44 1926 334137 Fax: +44 1926 314755 Email: <u>read@wiredinusa.com</u> Website: <u>www.wiredinusa.com</u>

#### -----

USA: Danbury Corporate Center, 107 Mill Plain Road, Danbury, CT 06811, USA Tel: +1 203 794 0444 Email: doug@intras.co.uk

#### SALES & MARKETING (INTERNATIONAL)

Sales Manager Jason Smith jason@wiredinusa.com +44 1926 834 684

Accounts Manager Julie Case juliecase@intras.co.uk

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SAUGUST 2016 ISSUE

















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## DIARY Show EVENTS 2016

#### SEPTEMBER

26-29 September 2016 wire China Shanghai, PR China Exhibition www.wirechina.net

#### OCTOBER

2-5 October 2016 IWCS Rhode Island, USA Conference and Exhibition www.iwcs.org

#### OCTOBER

5-7 October 2016 Wire & Cable India Mumbai, India Exhibition www.wire-india.com

## 2017

#### MARCH

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## **MAKING THE NEWS**

#### Bridging the gap with stay cables

The installation of stay cables on the new Goethals Bridge has begun. Set to replace the existing steel truss bridge, built in 1928, the new cable-stayed bridge will connect Staten Island to Elizabeth, New Jersey.

This process of installing the 72 stay cables on the new bridge's eastbound span will continue through the summer. Threading the strands (each one consisting of a bundle of tightly wound steel wires) through a cable's outer pipe takes several days.

The westbound span will also feature 72 stay cables.

The support cables of cable-stayed bridges tie directly to the support towers.

The twin spans of the new Goethals Bridge will each feature two sets of V-shaped towers, which will hold a total of 144 stay cables to support the two bridge decks. Installation of the stay cables on the new Goethals will provide the structural strength necessary for workers to build the eastbound roadway itself which, during the coming months, will gradually extend out from the New York and New Jersey towers to meet in the middle.



A crane hoists the cable to its anchorage within the 272-foot tower of the new Goethals Bridge. Photograph courtesy of Mike Dombrowski, Port Authority

According to the Port Authority, both the eastbound and westbound structures are projected to be substantially complete in late 2017, with full project completion, including demolition of the old bridge, projected for late 2018.



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Chris Ayers, WireCo president and CEO

## WireCo's bid to cut debt by \$240m

WireCo has announced an equity investment from an Onex Corporation affiliate.

Chris Ayers, WireCo's president and CEO, said: "We are pleased to welcome this investment by Onex, which facilitates the refinancing of our capital structure and positions WireCo for future growth. Onex brings more than 30 years of investing experience in industrial businesses and our team is excited to work with another highly qualified partner that shares our vision for WireCo's future."

José Gramaxo, WireCo's senior vice president and chief commercial officer, said: "WireCo is focused on continuing to provide our customers with the world-class service they have come to expect from us. With the additional flexibility we are gaining from our refinancing, we will have the ability to invest across WireCo's portfolio of leading brands."

Through the transaction, WireCo will refinance its capital structure and extend its debt maturities, substantially reducing leverage and annual interest expense. Upon closing, the company expects to reduce its debt from approximately \$840 million to approximately \$600 million, subject to closing timing. Annual interest expense is expected to be reduced by over \$20 million.

The terms of WireCo's agreement with Onex will be filed on form 8-K with the securities and exchange commission. The transaction is expected to close later this year subject to regulatory approval and customary conditions.



## Navy cable

The Naval Facilities Engineering Command (NAVFAC) Engineering and Expeditionary Warfare Center (EXWC) has awarded a \$15 million contract to Sound and Sea Technology Inc (SST) to integrate and install an underwater cable system in support of the seismo-hydroacoustic data acquisition system (SHDAS).

Under the contract, SST will perform engineering tasks including installation of the system and shore landing. SST president Judith Meggitt remarked: "This contract award is the result of many years of successful support for NAVFAC EXWC and proven performance. Our team of ocean engineering professionals has years of experience installing seafloor systems. It is gratifying to be awarded this task order for a critical national system."

SST's project manager, Michael Harrison, commented: "Seafloor cables are a core business for SST. This is the latest in a series of successful seafloor system projects, and we look forward to supporting this project further."

SST has participated in numerous other complex ocean cable system projects for the US navy, and for this program in particular.

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## **Cable goes Faster**

A trans-Pacific fiber optic cable system, funded by Google and a consortium of five other international companies, has gone online and is ready for service.

The "Faster" system lands in Oregon and has two landing points in Japan, in the China and Mie prefectures.

The cable delivers 60Tb per second bandwidth across the Pacific, and is believed to be the highest capacity undersea cable yet built - said to be around ten million times faster than the average cable modem. Hiromitsu Todokoro, chairman of Faster's management committee, said in a statement: "From the very beginning of the project, we repeatedly said to each other, 'faster, Faster and FASTER' and at one point it became the project name, and today it becomes a reality."

The Google consortium includes China Mobile International, China Telecom Global, Global Transit, KDDI and Singtel. The 9,000km cable, which has extended connections to Los Angeles, the San Francisco Bay area, Portland and Seattle, was built by NEC Corporation.

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## Linking US commands

A division of the US defense department has invited contractors to submit proposals to "design, manufacture, install, test and commission" a 750-mile underwater cable linking the US southern command Navy base to Puerto Rico, near San Juan. The work should be done, it said, 18 months after a contract is awarded, though with no projected award date.

The defense information system agency (DISA) said in a statement that the new underwater cable "will provide secure, high throughput, highly reliable, low-latency network redundancy" for the department of defense "and other government communications" connecting Caribbean sites of the US southern command and US northern command to the department of defense information network. DISA would not elaborate on what "other government communications" might run between the military base and Puerto Rico, but the Obama administration has been proposing changes to its war court structure to let judges hold hearings by teleconference between the base and United States, including allowing some Guantánamo detainees to plead guilty in a civilian court.

According to a defense information agency statement, the base's first fiber optic line went live in January. The Pentagon currently has 79 captives at the base's detention center zone and a staff of 1,950 to 2,200 to operate it. Over 3,000 sailors, their families, contractors and other federal employees also live on the base.

## **Automation investment**

Custom steel wire form manufacturer Marlin Steel is enhancing its production center in Baltimore, Maryland, with the installation of new manufacturing automation to its factory floor.

Company officials announced: "This machine represents the single largest investment in factory automation that Marlin Steel has made since 2014, when [we] acquired the Ideal MFDC welder, the only such welder in the western hemisphere." Drew Greenblatt, CEO of Marlin Steel, said: "To stay on top, American manufacturers need to have the best people, the best processes, and the best tools.

"We're investing in our team and our tools so we can deliver better wire baskets and rack products, faster. This is how American companies like ours will stay on top in a global market."

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# Fiber fault finding

The OTDR II (optical time domain reflectometer) from Ideal Networks has been designed for fault finding on fiber cabling on both single-mode and multi-mode fiber networks.

OTDR II delivers accurate test data and pass/fail results, and offers automated fault-finding capabilities that help to minimize network downtime.

Specially developed to simplify testing and troubleshooting, the OTDR II includes Ideal Networks' intelligent optical link mapper (iOLM). This functionality turns complicated graphs into a diagram that displays all events along the link with pass/fail results. The automated system's advanced algorithms also prevent common OTDR testing challenges, such as wrong OTDR traces. Designed to be easy to use, technicians can use iOLM to locate and identify faults with optimum efficiency and with no need for complex training or support. It also includes powerful reporting software which can be used to create and customize reports to meet business requirements.

As a solution for contractors, the versatile OTDR II offers a single unit solution for multiple network testing. Handheld and lightweight, the tablet-style tester is rugged enough to be used in any environment and offers an outdoor-enhanced touchscreen with icon-based functions and intuitive Windows-like operation.

## Wire dumping investigation

Brazil's foreign trade ministry has begun an antidumping investigation of imports of steel wire from China. The petition was requested by Brazilian steel wire producer Belgo Bekaert, a joint venture of steelmakers ArcelorMittal and NV Bekaert.

The product under investigation is high strength, circular section high-carbon steel wire with either smooth or notched surfaces, typically identified under HS codes 7217.10.19 and 7217.10.90, the ministry confirmed.

The ministry considered \$1,070.49 per tonne to be a normal export value, compared with Chinese export prices of \$623.65 per tonne. "The verified dumping margin [\$446.84 per tonne] shows the evidence of dumping in exports of China's steel wires to Brazil from January to December 2015," the ministry said in a statement.

## Cable collaboration

General Cable has joined the National Electrical Energy Testing Research and Applications Center (NEETRAC).

Jay Lahman, vice president and general manager, General Cable utility products, said: "Building strong collaborative relationships supports our strategic commitment to research and development. By joining the ranks of leading utilities and manufacturers, General Cable looks forward to advancing the development of new technologies that will be instrumental in improving the electric grid's safety, reliability and efficiency."

Rick Hartlein, NEETRAC director and management board chair, commented: "We are pleased to have General Cable as an official member of our organization. We know how electric power systems work and innovative wire and cable partners such as General Cable bring product solutions, advanced material science and industry-recognized testing knowledge to the collaborative partnership." Versalume will focus on developing smart, integrated products based on Corning's Fibrance light-diffusing fiber

## Shedding new light

Corning Incorporated is investing in Versalume LLC, a new company headquartered in California. Versalume will focus on developing smart, integrated products based on Corning's Fibrance light-diffusing fiber. Fibrance optical fiber can be bent, curved and wrapped around almost anything, while maintaining bright, uniform light.

Versalume will lead all commercial development efforts for Fibrance, serve as its exclusive distributor, and offer integrated technology solutions. Corning will leverage its long history and expertise in glass and materials science to manufacture Fibrance. Corning representatives will serve on Versalume's board of directors.

"Fibrance dramatically expands the toolbox for where and how light is delivered, and Versalume will make it easy for designers to capture its potential. We look forward to witnessing the creativity and impact of the developing Fibrance ecosystem," said Paul Then, director of early stage business development at Corning.

Mario Paniccia, a Silicon Valley executive and entrepreneur, has been named Versalume's chief executive officer. As Versalume's founding leader, Paniccia brings his experience in the photonics and electronics industries, as well as his broad connections in Silicon Valley. "I am excited for the opportunity to lead Versalume," Paniccia said. "We are already creating products that use Fibrance light-diffusing fiber and developing new commercial opportunities with some of the best industrial designers...[in] the world."

## Cross-state construction

AEP Southwestern Electric Power Company (SWEPCO) is building a new 345,000-volt transmission line between Valliant, OK, and Texarkana, Texas.

During the construction of the line near Texarkana, construction crews have used helicopters to perform work on the transmission line. Two aerial-service contractors, Erickson and Winco, performed the work to assemble and place transmission poles, transport workers, and pull wire between the structures.

to help reduce impact to the land, and minimize damage to property.

This method of construction is expected

Construction of the 77-mile line began in Oklahoma in early 2014 and is expected to be complete in both Oklahoma and Texas in late 2016.

The project was ordered by the Southwest Power Pool (SPP), the regional transmission organization responsible for overseeing the electric transmission grid in parts of Oklahoma and Texas to address regional reliability issues.



Belden's 10GXS cable has received its second Systems Contractor News (SCN) most innovative AV installation accessory award.

The awards showcase commercial AV products of 2015. The ballot of finalists was chosen by an independent panel of judges by narrowing down the field of submissions to no more than four products per category. Those ballots were opened to the public to vote, and the results were announced at InfoComm 2016 in Las Vegas.

Belden 10GXS category 6A smaller-diameter cables are designed to reduce space and weight by up to 25 percent without loss of performance or quality. The cables are said to offer 75 percent less noise coupling than other category 6A cables. With an Equiblock barrier for uniform heat-flow dissipation, 10GXS can support 100 watts

### Second award for AV cable

of PoH/PoE+ up to 100m without signal degradation. Its smaller size and bend radius accommodate tight spaces and smaller conduits.

Belden 10GXS addresses HDBaseT's biggest challenge, alien crosstalk, by offering a patented EquiSpline that controls the balance of the cable by providing a compartment for each pair. These compartments ensure consistent cable geometry, which enables higher performance in terms of noise rejection and insertion loss.

The pairs are well balanced, and the system is not affected by ground loops that can cause interference and transmission errors in shielded systems. It optimizes electrical performance with up to 10dB of alien crosstalk headroom and is said to offer superior crosstalk isolation and EMI suppression.

### **Plant growth**

Lexington-based Prysmian Group North America is to invest \$1.9 million in its Abbeville facility, creating five new jobs for the area.

Opened in 1964, the Abbeville plant features North America's only vertical continuous vulcanization manufacturing line. The 373-feet-high line housing tower, built in 2009, is said to be the tallest building in South Carolina.

"The Abbeville plant is the cornerstone of the operations of Prysmian North America, and we are blessed to have sustained business from longtime customers combined with some new relationships," said Cecil Talley, director of operations at the Abbeville plant. "We have organically grown to meet demand and to ensure our plant is operating efficiently, and I'm grateful to our Abbeville employees for their role in our success."

The Abbeville plant is one of ten North American locations for Prysmian Group, which has invested \$20 million in improvements and expansions at the South Carolina facility.

# Long wait on Long Island approval?

The Long Island Power Authority (LIPA) postponed a meeting on Deepwater Wind's 90MW Deepwater One – South Fork project, after receiving a request from New York State Energy and Research Development Authority (NYSERDA).

LIPA had been expected to approve the 90MW wind farm at the meeting, scheduled for 20<sup>th</sup> July.

NYSERDA requested the postponement to align the proposed Long Island project with the state's offshore wind master plan and the state's Clean Energy standard, both of which are scheduled to be released shortly.

New York's Governor Cuomo recently issued a statement strongly in support of the Deepwater One project to help achieve the state's 50 percent renewable energy goal. "There are no time sensitive matters on LIPA's board agenda, and the authority expects to reschedule the meeting after the release of the NYSERDA offshore wind blueprint. LIPA remains committed to its renewable energy goals and meeting the energy needs of the South Fork."

The Citizens Campaign for the Environment, Natural Resources Defense Council, National Wildlife Federation, Renewable Energy Long Island, and the Sierra Club expressed disappointment at the postponement. A statement said: "We need Governor Cuomo to ensure this vote happens quickly, so that offshore wind power becomes a reality for New York."

The statement continued: "In the absence of this wind farm, LIPA will be forced to add more fossil-fueled power plants that will increase costs for all ratepayers."

LIPA's meeting will now be held after the release of the state's offshore wind report.

## Taking the software route?

Makai Ocean Engineering is reporting multiple new sales of its MakaiPlan, MakaiPlan Pro, and MakaiLay software for route engineering, installation planning, and real-time lay control of subsea cables.

Dr Venkata Jasti, Makai's manager of submarine cable systems, said: "We've worked hard on improving the functionality and user-friendliness of Makai's software suite, especially power cables. Helping for subsea our customers succeed in their route engineering, installation planning, and at-sea cable laying operations is what drives us."

Makai's recent purchasers include: China Submarine Cable Construction Co; Kokusai Cable Ship Co Ltd (Japan); General Dynamics (USA); and ALDA Marine (France).

Makai with provides clients comprehensive software tools and training to span the entire cable project, from inception to installation. The software suite consists of MakaiPlan, for route planning and engineering; MakaiPlan Pro, to identify installation risks and prepare a detailed installation plan before going to sea; and MakaiLay to enable users to lay submarine cables with the highest level of accuracy, speed, safety, and reliability while dramatically reducing the risk of cable failures.

Makai software has been rigorously tested and validated, and is said to have been used by over 75 percent of the global fleet of cable ships to successfully install in excess of 400,000km of cable worldwide.



# All that glitters...

Anomet Products Inc has launched composite clad metal gold wire and gold alloy wire, considered superior to electro-plated wire for a wide range of electronic applications.

Anomet Gold and Gold Alloy composite wire and strip are clad over copper and copper alloy substrates and metallurgically bonded.

They have a smooth, consistent surface finish, with greater ductility and formability than electroplated products. Functionally equivalent to solid products, these clad metal products are designed for high-reliability electronics such as micro-switches and rotary connectors.

They are also suitable for fabricating coils and hermetic devices, being

conductive, solderable, formable, and corrosion-resistant.

Typically incorporating 2 percent or more cladding thickness, both wire and strip are uniformly dense and will not crack or flake. Sizes start at 0.002" (0.05mm) outside diameter.

Anomet Gold and Gold Alloy composite wire and strip are typically a tenth of the cost of solid precious metal products.

# EUROPE NEWS



## COST CUTTING PROGRAM

The Carbon Trust has revealed details of a new European phase of its Offshore Wind Accelerator (OWA) research, development and demonstration program.

The program aims to reduce the cost of energy from offshore wind by improving efficiency and availability, and reducing costs, of existing and future offshore wind farms.

Nine of the largest offshore wind developers in Europe, DONG Energy, EnBW, E.ON, Iberdrola, RWE, SSE, Statkraft, Statoil and Vattenfall, have signed up to the program. Over the next four years the developers will collectively invest at least  $\pounds$ 6.4 million (around \$8 million), boosted by a further  $\pounds$ 1.5 million (around \$1.8 million) from the Scottish Government, to bring new developments to market that will help to ensure that the typical cost of offshore wind is below £100 (\$131) per MWh by 2020. Tom Delay, chief executive officer of the Carbon Trust, said: "Over the last five years the cost of energy from offshore wind has decreased significantly, largely driven by a combination of innovation, risk reduction and increased deployment rates.

"But we need to continue building on this success by getting the right solutions into market quickly to put offshore wind on the path to cost competitiveness by 2020. The Offshore Wind Accelerator has an impressive track record, providing an effective mechanism for public and private sector to work together to meet the cost reduction challenge head on. Its success lies in the sharing of the risks and rewards of innovation through industry-led collaborative research, development and deployment."

#### **EUROPE NEWS**



#### Hydropower upgrades

ABB has upgraded the three HVDC stations converter on power the transmission link between Québec, Canada and New England, to promote reliable hydropower trade. The 1,500km multi-terminal link upgrade work is a part of a contract awarded to ABB by Canadian and US utilities Hydro-Québec and National Grid.

Under the contract, ABB will replace the link's 20-year old control and protection systems with new modular advanced control systems for HVDC equipment to ensure a reliable and highly controllable power supply.

The new control and protection system is designed to provide a high degree of integration capability and features advanced fault registration and remote control functions.

The 2,000MW interconnection, claimed to be the world's first multi-terminal link, will carry power from the La Grande II hydroelectric generating complex, near James Bay in eastern Canada, to Sandy Pond, near Boston, Massachusetts.

The contract scope also includes upgrade of two cable transition stations and a control and protection system replica for a test center in Canada.



#### **Baltic connection**

Representatives the of European Commission (EC), the Joint Research Center, and countries of the Baltic Energy Market Interconnection Plan (BEMIP) are set to reach a decision in December regarding the synchronization of Baltic and western European electricity networks. The project has been described as "one of the most important energy projects of the decade".

"Lithuania, just like the rest of the BEMIP countries, emphasized their expectation that the BEMIP political decision should be made before the end of this year, and the European Commission assured that this would be the case," confirmed Rimvydas Stilinis, director for infrastructure at Epso-G energy company holding.

Mr Stilinis explained that the EC Joint Research Center will present a study of synchronization alternatives in October, before a task force of BEMIP countries approves the plans in December, with synchronization work beginning soon afterwards.



#### French/Irish cooperation

Irish transmission operator EirGrid has signed a memorandum of understanding with its French counterpart Réseau de Transport d'Electricité for the design and pre-consultation phase of the proposed \$1.1 billion Celtic interconnector project.

With a capacity of approximately 700MW, the transmission project involves the development of a 600km subsea electricity cable between the two countries by 2025.

EirGrid's CEO, Fintan Slye, said: "It will improve security of supply on the island of Ireland and increase competition, driving down prices for customers."

The firms have previously completed a five-year feasibility study. Over a two-year period, EirGrid and RTE will undertake an economic assessment of the project; technical studies and initial technical design specifications; environmental studies; and pre-consultation in preparation for permits in France and Ireland. The partners will also assess the landing points for the cable and connection points to both electricity transmission grids.

Based on results from the initial design and pre-consultation phase, EirGrid and RTE will decide whether to move ahead with the next phase.



#### **Danish contracts**

The Hellenic Cables group has been awarded contracts for the planning, design and supply of cables and accessories to connect substations in Denmark and Sweden, and a further contract for the planning, design and supply of underground cables to replace an overhead line in Denmark.

The contracts form part of the overall planning of Energinet.dk for modernizing the interconnection between the national grids of Denmark and Sweden, and for removing overhead powerlines in Denmark.

The contracts involve the planning, design and supply of 150kV three-core and 132kV single-core submarine cables, 132kV and 150kV single-core underground cables, and the supply, delivery and installation of joints and terminations. Approximately 18km of submarine cables and 75km of underground cables will be supplied from Hellenic's manufacturing plants in Greece.

The 132kV XLPE insulated, single-core unarmored submarine cables and the 150kV XLPE insulated, three-core composite submarine cables will be produced by the Hellenic Cables Group at its Fulgor plant in Corinth, while the single core 132kV and 150kV high voltage underground cables will be produced in Thiva. All three contracts will be completed by the end of 2017.

#### **EUROPE NEWS**



### Scottish power development

SHL Offshore Contractors has awarded a contract to Siem Offshore Contractors to supply and install an inner array grid cable system for the 588MW Beatrice offshore wind farm off the coast of Scotland.

Siem Offshore will provide submarine cable installation works, and deliver the submarine composite cables, cable protection systems and related accessories as well as post-installation termination, trenching and testing services.

The Beatrice wind farm will be located 13.5km from the Caithness coast in the outer Moray Firth, comprising 84 Siemens wind turbines, each producing 7MW of electricity. Each wind turbine will be connected using the inner array grid cable system supplied and installed by Siem Offshore.

The turbines will be inter-linked by an inner array grid of 91x 33kV medium voltage alternating current submarine composite cables with a total length of about 164km.



## Kalmykia wind development

Alten Ltd, a subsidiary of a Czech-based holding, has placed an order with the German manufacturer FWT Production GmbH for a 51MW wind farm to be built in the republic of Kalmykia.

FWT will supply twenty of its FWT 2500 wind turbines, each with a nominal capacity of 2.55MW. Commissioning is expected for the first half of 2017.

FWT is a German manufacturer of wind turbines in the range from 2MW to 3MW and has previously delivered turbines to Kazakhstan, Poland and Germany. Alten Ltd is among the first companies to develop and operate wind farms in the Russian Federation. Since 2010 it has installed wind power plants with a total capacity of 2.4MW in the republic of Kalmykia, a constituent republic of the Russian federation in the southwestern part of European Russia. In an area of 74,731km<sup>2</sup> Kalmykia has only around 290,000 inhabitants.

The Kalmykia wind farm project, Priyutnenskaya VES 51MW, is the first private investment wind farm of industrial scale to be built in the Russian federation.



Sea trials project

The European Union has granted around \$12 million to a marine energy test facilities project.

The project, known as the Funding Ocean Renewable Energy through Strategic European Action (FORESEA), will be led by the European Marine Energy Centre (EMEC) and supported by the European industry group Ocean Energy Europe. It will be backed by the Interreg North-West Europe (NEW) program, part of the European Regional Development Fund (ERDF).

The project involves ocean energy test facilities including EMEC in the Orkney Islands; SmartBay in Galway, Ireland; SEM-REV in Nantes, France; and the tidal testing center in Den Oever, Netherlands.

FORESEA will offer a series of funding and business development support packages to ocean energy technology developers to allow them to test and demonstrate their technology in real-sea and grid-connected conditions.



Insulator finds its niche

Dacon Systems is specifying Solvay's KetaSpire KT-851 NT polyetheretherketone (PEEK) as an insulator for wire and cable for oil well and nuclear energy applications.

Typical wireline applications in oil and gas down-hole environments transmit data for the purposes of well intervention, data logging and reservoir evaluation, and often subjected to extreme temperatures and pressures. KetaSpire PEEK coatings meet the performance demands of these applications. Specifically, KetaSpire KT-851 NT PEEK offers reliable long-term insulation performance up to 240°C with improved abrasion resistance.

Solvay's KetaSpire PEEK also resists up to 1,000kGy of gamma radiation, which can cause conventional fluoropolymers (polytetrafluoroethylene and fluorinated ethylene propylene) to become brittle. For this reason, Dacon Systems is using KetaSpire PEEK for coating wires and cables that transmit power or sensor data in nuclear plants.

KetaSpire PEEK polymers are inherently flame retardant and bromine- and chlorine-free with excellent low smoke properties.

# ASIA& AFRICA NEWS

wiredInUSA - August 2016



## DUCAB'S CABLES LINK TO `OFFICE OF THE FUTURE'

Ducab has supplied approximately 10km of cables and wires, including LPCB approved FlamBICC fire performance cables, TUFF DuFlex heat resistant flexible cables, and the Ducab Connect range of cable accessories, to the "Office of the Future".

The Office of the Future installation is the world's first entirely 3D-printed office, recently launched by His Highness Sheikh Mohammed Bin Rashid Al Maktoum, vice-president and prime minister of the UAE and ruler of Dubai.

"Dubai has a strong vision for its future. As an Emirati company, Ducab is exceedingly proud to play a part in converting the vision to reality through the provision of UAE manufactured cables and powering projects that are shaping the future for Dubai and for the UAE in general," said Dr Ahmed Bin Hassan Al Shaikh, Ducab's chairman.

It was printed using a giant 3D printer measuring 36.5m long, 12m wide, and 6m high (120ft x 40ft x 20ft). The machine used a multi-axis robotic arm to print in three dimensions. It took 17 days to print the structure, and two days to install it on-site.

ASIA / AFRICA NEWS



#### Southeast spread

Helukabel has opened its 25<sup>th</sup> subsidiary. A sales and logistics team will be based in Ho Chi Minh City, Vietnam, to handle customer inquiries under the leadership of Prapan Angsuthasawit.

Over the past ten years, Vietnam has been among the world's fastest growing national economies. The industrial sector alone generates over 40 percent of economic output and the figure is expected to rise, especially in the machine manufacturing and plant engineering sectors.

Previously, Helukabel products have been available only through the company's Thailand subsidiary.

"Similar to other markets, the cable business demands fast response from local suppliers. This expansion into Vietnam will enhance availability of highly sought after, regional products and to ensure the excellent customer service that Helukabel is known for," said Mr Angsuthasawit. He continued: "Being based in Ho Chi Minh City strategically places us near many of the industrial based businesses in the country."



#### Island connections

A delegation from Wallis and Futuna, the South Pacific territory, has met with the Samoan government about a possible connection to the new undersea fiber optic cable owned by Samoa Submarine Cable Company.

The Samoan government launched the \$49 million project last October, in the hope of establishing the country's first locally owned submarine cable company. Wallis & Futuna want to capitalize on the Apia to Fiji spur, which will be within close proximity to the islands.

Funding from the European Union will pay for the territory's undersea cable connection, which is expected to be on line by September 2017.

Chief executive of the ministry of communication, information and technology, Tua'imalo Ah Samu told the Talamua newspaper that the Wallis and Futuna talks were a continuation of an initial meeting in November 2016. He added that Fiji has also shown interest in utilizing the SSCC for improved internet connection.

Samoa has yet to finalize the costs for these services.



## **Acquisition news**

Taihan Electric Wire has taken over a joint venture in Vietnam and launched it as a new entity in the country.

The joint venture, Taihan Sacom Cable, was established in 2005 to produce low and medium voltage cable, flame retardant, fire resistant and control cables. Joint-investor Taihan Electric Wire has now acquired its partner's remaining 30 percent and plans to turn the new company, renamed Taihan Cable Vina, into a global firm.

In 2015, Taihan Sacom Cable reported sales of \$36 million. "We plan to increase annual sales to \$190 million by 2020," said Taihan Electric Wire's CEO Choi Jin-yong, who is also head of the Vietnamese operation.

Taihan Electric Wire is considering investment in value-added products and related equipment to increase capacity. Raw materials will be shipped from Taihan's plant in Chungcheong province.



## Moroccan wind plans

The first private wind farm in Morocco will be launched in the northern city of Tangiers in September 2017.

The Moroccan news website Media24.ma said the 120MW facility will be built on the ridge of the Jbel Sendouq, a mountainous area approximately 50km east of Tangiers, and will primarily address the needs of industry.

In June 2010, Morocco adopted Law 13-09, which allows renewable energy projects in private ownership in the country to sell energy. The law is part of a larger, environmentally conscious effort across the country.

Owned by the Saudi consortium of ACWA Power and the Moroccan group of UPC renewables, the planned wind farm will require an investment of \$170 million.

Morocco's government has committed to producing approximately ten percent of its power from wind resources. Morocco ranks with Costa Rica, Bhutan and Ethiopia among the world's "greenest" countries, partially due to its ambitious goals to reduce carbon emissions, and is hosting a global climate change conference later this year.



## Cable offers subsea security

Viettel has invested \$50 million in an AAE-1 subsea fiber optic cable offshore station at Vũng Tàu, Vietnam, set to begin operation by the end of the year. The 2Tb per second cable, which is 23,000km long, will connect Asia, Africa and Europe, with offshore stations in, among others, Hong Kong, Singapore and France.

Total investment for the system is \$820 million, with 20 telecommunication companies from 18 countries providing funds.

The cable will play an important role in Viettel's international connection infrastructure, meeting demand for international bandwidth in Vietnam and serving connections with Europe and several African countries, including Tanzania and Burundi.

The connection with the AAE-1 fiber optic cable will increase safety and stabilization for Viettel's international network connection as well as national information security. Vietnamese telecommunication enterprises are currently connected through several different subsea cables including the 20,000km AAG, which has suffered from intermittent problems and frequent repairs.



Asian collaboration

Sumitomo Electric Industries Ltd has concluded a sales partnering agreement with Waminn Group (Wa Minn) of Myanmar, with a view to expanding the market for low and medium voltage cables in the country.

Overseas investment has grown steadily since a new Myanmar government was established in March 2016, while the development of infrastructure, such as roads, ports, railroads, electric power and communications, has posed a great challenge. While Myanmar's electrification rate is approximately 35 percent at present, the country aims to achieve 100 percent by 2030, with resulting growth in the demand for electric power.

Accordingly, the expectation is that the electrical infrastructure market will grow substantially in Myanmar. To take advantage of this opportunity, Sumitomo Electric concluded its partnering agreement with Wa Minn.

Sumitomo Electric is looking to strengthen its collaboration with Wa Minn to expand its business in Myanmar, and thereby contribute to the further development of the country.



## Cable venture

UC RUSAL and Hebei Joy Sense Cable Co (HJSC), a Chinese aluminum alloy cable manufacturer, have signed an agreement to establish a joint venture, JSC RUSAL-Hebei Joy Sense Cable Special Aluminium Products Co Ltd Investments. The partners will invest \$1 million dollars and will make further investment decisions on completion of a feasibility study.

JSC RUSAL-Hebei Joy Sense Cable Special Aluminium Products Co Ltd is established with equal ownership stakes of 50 percent between the partners. The venture will be a production and sales company with the production located at HJSC's facilities in Shijiazhuang, Hebei Province. The existing facilities will be developed and modernized.

will cable The venture produce products such as high temperature aluminum-zirconium alloy cables for overhead transmission lines, made under RUSAL's license, and cabling and wiring products for solar and wind energy. The facility will be capable of processing 72,000 tonnes of aluminum wire rod per year at full capacity. Products will be supplied primarily to China, southeast Asia and India.



## Australian acquisitions

Vocus Communications has announced its acquisition of Nextgen Networks, along with two undersea cable projects, the North West Cable System (NWCS) and Australia Singapore Cable (ASC).

Vocus Communications will fund the purchase via a fully underwritten equity capital raising, and using "existing committed debt facilities," Vocus said in a statement.

The deal is subject to ACCC clearance and other conditions, and is expected to be completed in around three months.

The NWCS is a 2,000km mostly undersea ultra-speed data networking cable connecting offshore oil and gas facilities between Port Hedland and Darwin to onshore locations including data centres and business headquarters.

Vocus already operates a 17,000km fiber backhaul network and the addition of Nextgen and the two development projects is likely to enhance the company's position as a telecoms provider in the Australian market.

# PRODUCTS MACHINES TECHNOLOGY

wiredInUSA - August 2016

#### Data center system

Panduit has launched its HD Flex 2.0 fiber cabling system specifically for high-performance data centers.

The latest addition to its fire solutions portfolio has been designed for ease of integration with fiber infrastructure by accommodating fiber cassettes and fiber adapter panels (FAPs) with different port counts within the same enclosure and panel.



 Panduit has launched the HD Flex 2.0 fiber cabling system for high-performance data centers

The 6-port or 12-port cassettes and FAPs can be deployed in virtually any combination to achieve up to 144-fibers (LC) or 864-fibers (MPO) per rack unit. This solution enables port migration from 10G to 25/40/50/100G in the same RU space without replacing existing fibers.

Marc Naese, senior vice president of Panduit's data center business unit, said: "Today's IT managers are increasingly tasked with providing higher data speeds while controlling costs by maximizing return on assets.

"Panduit's HD Flex fiber cabling system achieves both. It is designed for optimum
2.0 serviceability and manageability, for providing the scalability to increase density as business demands evolve."

Stephen Morris, senior product manager at Panduit EMEA, DC Connectivity Solutions stated: "HD Flex 2.0 provides DC managers with new options to provision for future higher bandwidth migration paths, logically replicate switch/server ports, scale the network, increase speed of deployment and maximize up-time."

#### **Standout printing**

Linx Printing Technologies has developed a white cable ink for the cable and wire market, offering excellent adhesion to all types of polyethylene (PE) while providing effective standout on darker products.

The many different varieties of PE create a challenge for printing inks and, typically, in order for them to adhere to the material and avoid removal by rubbing or scratching, initial treatment of the surface is required. Treatment can be by methods such as heat, corona or plasma, which raises the surface polarity and improves adhesion, but this requires an additional process on the production line which is often not appropriate or convenient.

Linx's 1320 ink formulation eliminates this requirement and is able to deliver a clear code that is difficult to remove and also withstands transference during cable winding applications. The Linx white cable ink can be used with the Linx 7900 Spectrum CIJ printer with 75 micron printhead. The 7900 Spectrum is specifically designed for continuous coding with pigmented inks. In addition, the printer does not need mechanical stirrers or factory air, keeping cost and maintenance to a minimum.

#### **Faster unfastening**

For over 550 igus Chainflex continuous flex cables, including control, measurement, motor, power, and servo cable options, the process of stripping the cable jacket is now a quick, manual operation. Using igus' integrated CFRIP tear strip, the cable's jacket is openable like a zip fastener and said to cut stripping time by up to 50 percent.



▲ igus helping to cut stripping time by up to 50 percent

A high tensile strength plastic thread serves as the rip-cord, and causes no damage to the conductors. To simplify the stripping process even further, igus has also released a specialized CFRIP tool, which protects fingers from the taut CFRIP thread during stripping.

The CFRIP design was awarded a 2016 iF design award for its functionality.

#### "On the fly" inspection

Lazpiur SA has developed its new BEGItech CLT system to provide full inspection of fasteners.



▲ The new BEGItech CLT system

The newly designed BEGItech CLT machine uses a powerful software package with calculation capacity that enables the machine to verify 800 parts per minute. The inspection is performed while the part is in the air.

The system is said to provide a variety of benefits over other systems, such as the glass ramp. The design removes any interference between the vision system and the measured object, with the part carried on a belt and then ejected while the vision system photographs the part for full inspection.

The BEGItech CLT machine works with parts such as shafts and studs, and meets a market demand in sectors such as screw making and bar turning. The accuracy of this system is potentially 0.005mm, depending on the chosen vision hardware.

Lazpiur has launched two versions of the BEGItech CLT machine. The first is designed for small parts up to 20mm long, and the second for larger parts up to 50mm long.

#### Weather watch

StormGeo has added a cable lay service to its existing weather forecasting portfolio.

StormGeo's cable lay service provides a common operating picture (COP) to enable operators, owners and supporting agencies engaged in operations to make effective, knowledge-based and timely decisions.

The intuitive portal interface allows users to control displayed layers including metocean data, vessel locations, AIS

tracking, satellite and radar imagery, visibility, ice conditions and other parameters.

Using sophisticated models and the expertise of in-house meteorologists, StormGeo provides the tools to assess weather risks related to operations at sea and helps identify suitable weather windows for all operations.



 StormGeo can support operations with a dedicated onsite meteorologist

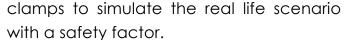
The service helps cable owners and cable operators improve the planning of their operations.

Kent Zehetner, StormGeo CEO, said: "Cable laying operations are challenging, time critical and dependent on weather conditions. It requires extensive expertize and highly accurate, up-to-date information to prevent project delays caused by bad weather and rough sea-state conditions. In an effort to support operators to reduce weather uncertainty we created StormGeo's cable lay service for better planning of operations and for keeping their employees safe, while clamps to simulate the real life scenario reducing costs and saving time."

lf required, StormGeo can support operations with a dedicated onsite meteorologist for expert and immediate decision support on operative windows.

#### Hang-off systems

Vos Prodect Innovations was recently contracted by Siem Offshore Contractors GmbH, regarding testing and delivery of sealed cable hang-off systems for two 155kV HVAC cables between two offshore substations in German waters.



Successful completion of the test is said to mark a major milestone towards launching a cable hang-off system for high voltage cables for use by offshore wind farm projects.

#### Cables get CPR

Prysmian Group is claiming the widest range of energy and telecommunications cables compliant with the European construction products regulation (CPR).

Date of Applicability of this harmonised standard was 10<sup>th</sup> June 2016, with date of the end of the co-existence period set for 1<sup>st</sup> July 2017. Prysmian has the required capabilities for fire testing, products positioning and materials development already in place to assist its customers through the transition period.

"CPR is a unique turning point to enhance the level of safety and quality in the European cable market," said Valerio Battista, CEO Prysmian Group. "This regulation will guarantee for any cable product intended to be used in construction works a certain level of performance in relation to their reaction to fire, resistance to fire and release of dangerous substances."

Prysmian has developed and launched a dedicated website and communications campaign addressed to decision makers, specifiers, professionals and customers.

The Vos Prodect endurance test

Vos Prodect performed an endurance test with the HVAC cable, clamped in the temporary hang-off section. A weight of 4,400kg was hung on the temporary



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## Marketing:

Contact Jason Smith, wiredInUSA, Tel: +44 (0) 1926 834684 Email: **jason@wiredinusa.com** 

## News:

Contact David Bell, Editor, wiredInUSA, Tel: +44 (0) 1926 334137 Email: **<u>david@wiredinusa.com</u>** 





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### **GET IN TOUCH FOR MORE INFORMATION**

Jason Smith, Tel: +44 (0) 1926 834684 jason@wiredinusa.com

David Bell, Editor, Tel: +44 (0) 1926 334137 david@wiredinusa.com

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