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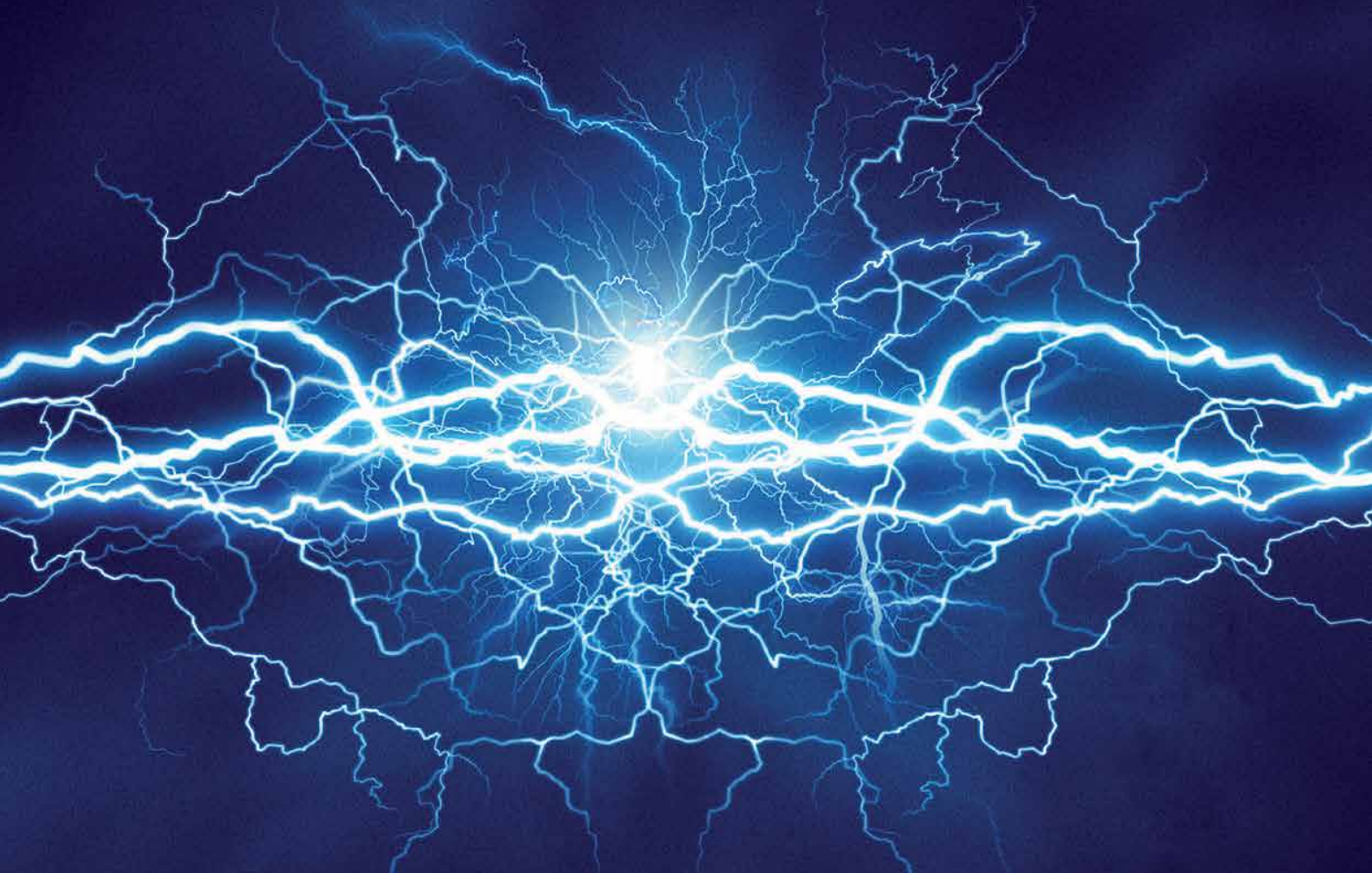
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Greetings*



Alcoa flying high with \$1bn deal

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#54 EDITOR

Champagne corks will be popping at US-based Alcoa after it landed a \$1 billion contract to supply aerospace fastening systems to Airbus. The deal, the largest fastener contract with the aircraft manufacturer, will continue the use of Alcoa's fasteners on every Airbus platform. For the full story, see page 9.

US-born entrepreneur Nikhil Jaisinghania is to be applauded for harnessing the sun and using solar power in villages in Uttar Pradesh for the last five years. Many villages, which use currently kerosene to provide power, are benefitting from the idea where his Mera Gao Power company provides solar panels in the village, runs wires into the houses and charges the household a weekly fee that is little more than the price paid for the kerosene.

There is plenty of work for the company to do with an estimated 300 million people in the country without direct access to basic electricity. You can find the full story on page 13.

Prisoners and the government in India are cashing in after a private-public partnership between Spark Minda, Ashok Minda Group, Yerwada central prison and Mahindra and Mahindra Ltd, where an assembly plant has been set up in the Yerwada jail for prisoners to manufacture wiring harnesses.

The deal, which sees 80 units built a day at RS200 each, provides RS55 for the worker, ten percent to the Prisoners' Welfare Fund and the rest to the government. Details are on page 35.

I'd also like to take this opportunity, on behalf of all the wiredInUSA team, to wish you season's greetings for the festive period and a happy, healthy and prosperous new year.

David Bell
Editor

PAGE
06

PAGE
09

PAGE
26

PAGE
32

PAGE
34

PAGE
40

CONTENT

SHOW DIARY / 2016

MAKING THE NEWS / *Industry news from the USA*

EUROPE NEWS / *The latest news from Europe*

INDUSTRY TRADE ASSOCIATION / *Spotlight on awards, education*

ASIA & AFRICA NEWS / *The latest news from Asia & Africa*

PRODUCTS, MACHINES AND TECHNOLOGY / *The latest news from*

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: read@wiredinusa.com
Website: www.wiredinusa.com

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



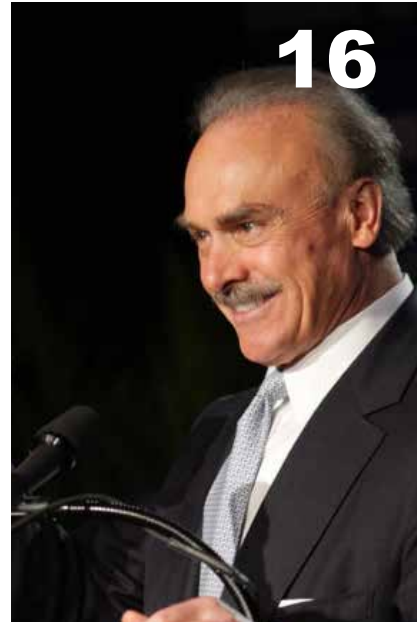
13

#54 DECEMBER

2015 ISSUE



24



16



28

and events

in machine industries



35



31



37



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DIARY SHOW EVENTS

2016

APRIL

4-8 April 2016
wire Düsseldorf
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JUNE

12-14 June 2016
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JUNE

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MAKING THE NEWS

Alcoa flying high with \$1bn deal

US-based Alcoa has signed a contract to supply aerospace fastening systems to Airbus, a deal valued at approximately \$1 billion. The contract is Alcoa's largest fastener contract with the aircraft manufacturer, which already uses Alcoa's fasteners on every Airbus platform.

The fasteners will be used to assemble some of Airbus's latest airplanes, including the A350 XWB, its newest commercial airplane. Alcoa will supply advanced fastening systems, such as those that enhance the assembly of aircraft panels and engine pylons on newer airplanes with sophisticated design features.

The A350's composite panels incorporate an outer copper mesh to manage the direct effects of lightning, helping to maintain the Faraday cage principle and channelling the electrical current harmlessly around the fuselage, rather than letting it pass through to damage fasteners and structures.

Alcoa's fasteners are made from stainless steel, titanium and nickel-based superalloys, which improve fatigue life, enable lightning strike protection, and improve wear and reusability on conventional and composite aircraft.

Alcoa has acquired RTI International Metals; aerospace components manufacturer, TITAL; and global jet engine parts manufacturer Firth Rixson, in a move to capture a greater share of the aerospace market.



Potential buyer for Wire Company

NYW Acquisition LLC, a Florida-based limited liability company, could acquire Wire Company Holdings, the owner of New York Wire, which filed for Chapter 11 bankruptcy reorganization on 8th October.

The company would pay \$8.1 million, or no less than \$7.3 million after any adjustments.

A report in the *Hanover Evening Sun* said that NYW has filed an asset purchase agreement in Delaware.

Wire Company Holdings, a maker of wire products for the automotive, electronics and communications industries, is said to list over \$12.2 million in outstanding secured debt and in excess of \$3.4 million in other obligations.

Any sale of the company would require

the approval of the bankruptcy court judge, Laurie Selber Silverstein, who is presiding over the case. Potential buyers had until 5pm on 30th November to make a bid of at least \$8.1 million with a deposit of 10 percent.

If more than one qualified bid is made an auction will be held, and Silverstein will hold a hearing to approve a buyer.



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To Europe – and beyond

Digital Realty Trust Inc is partnering with Aqua Comms Ltd to deploy its new transatlantic fiber optic system, America Europe Connect (AEConnect). Stretching over 5,400km across the Atlantic Ocean, between Long Island and the west coast of Ireland, with stubbed branching units for future landings, AEConnect is expected to be available in the first of Digital Realty's data centers by the end of 2015. It will later be made available to two other New York facilities.

The subsea cable features the latest technology of 130 gigabits per second by 100 gigabits per second, per fiber pair, to provide low-latency connectivity between New York and London and beyond to greater Europe. AquaComms' AEConnect is

part of the new generation of subsea cable systems connecting New York and London, representing an update of the systems built nearly 15 years ago. It is expected to leverage the latest software-defined network (SDN) technology to provide global data centers, cloud-based networks and content providers with low-latency and high reliability solutions to growing transatlantic capacity requirements.

Greg Varisco, chief operations officer at AquaComms, said: "Digital Realty offers cutting edge data center solutions in the New York metropolitan area and beyond, which will allow our customers to extend existing networks and expand into new markets."

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Mera Gao Power co-founder Nikhil Jaisinghani, operations manager Sandeep Pandey and co-founder Brian Shaad.

Photograph courtesy of Plugindia.com

Micro grids for maximum impact

The pattern for much of life in India is dictated by the sun. If solar power can be made to do what grid power has, as yet, been unable to deliver, the advantages are clear — children can study, women can better organize their work, people need not suffer and, sometimes, die from kerosene fumes or burns. There are other advantages too — people can see and avoid scorpions and snakes, or a small refrigerator can store life-saving drugs.

Nikhil Jaisinghani, a US-born entrepreneur, has been successfully solar-powering villages in Uttar Pradesh since 2010. He installs solar panels in the village, runs wires into the houses, and charges households a weekly fee that is little more than they previously paid for kerosene. Mr Jaisinghani retains any surplus.

There remain, however, a staggering 300 million people in the country still without access to even this basic electricity and, every year, rural India

spends an estimated \$60 billion to burn hazardous and CO emitting kerosene. Mr Jaisinghani recently told the UK's *Guardian* newspaper that he hoped to bring solar power to 100,000 homes by 2016. By September 2015 his company, Mera Gao Power (which translates to "My village electricity") had covered just 20,000 households across 1,500 villages in northern India.

He certainly underestimated the difficulty of the business terrain he was entering, but the idea itself is robust and Mera Gao Power should now be in a position to make money and grow.



World first certification

UL Wire & Cable, a division of the global safety science organization Underwriters Laboratories, has issued the world's first limited power (LP) certification to a number of General Cable's GenSpeed® brand data communications cables.

Over the past decade, power-over-LAN cable technologies such as power-over-Ethernet (PoE) have become a viable powering option. Anticipating future standards, device manufacturers are designing increasingly sophisticated equipment that requires more power. UL's new LP certification provides a simple way to help ensure installations are future-proofed against increasing power levels and remain protected against issues caused by heat generation. The certification takes large bundle sizes, high ambient temperatures and other environmental issues into account.

"We are pleased to see this trend towards LP certification in the wire and cable industry," said Steven Galan, director of UL's wire and cable business. "UL's trusted third-party certification gives manufacturers like General Cable a way to substantiate the very real benefit claims they make about their cables while also simplifying choice for customers."

"With PoE technology becoming more established, General Cable has led the industry in providing cables that support the advancements," said Scott Brown, director of technology, communications products, General Cable. "When the new listing became available, it only made sense to work with UL Wire & Cable to have the first UL CMP-LP certification, which will make choosing cables for high power PoE systems easier."

Cables under threat?

Washington Free Beacon has reported that a US senator believes Russian aggression may pose a threat to subsea communications cables. Russian submarines and spy ships have been caught “aggressively operating” near cables in the last month, prompting concern that Moscow could easily sever the cables and leave entire nations without access to the web.

The matter has been discussed during closed-door briefings between senators and senior officials from Naval Intelligence, the Department of Homeland Security, US European Command, and the Office of the Director of National Intelligence. “Undersea cables are critical to our economy, our communications, and our national security,” Senator Roger Wicker said in a statement,

continuing: “The United States needs to take seriously the growing Russian threat to these cables.”

The *New York Times* reported in October that intelligence officials suggest that: “The ultimate Russian hack on the United States could involve severing the fiber optic cables at some of their hardest-to-access locations to halt the instant communications on which the West’s governments, economies and citizens have grown dependent”.

In a letter to the Director of National Intelligence, James Clapper, Senator Wicker requested that the administration provide lawmakers with a classified brief on the matter.

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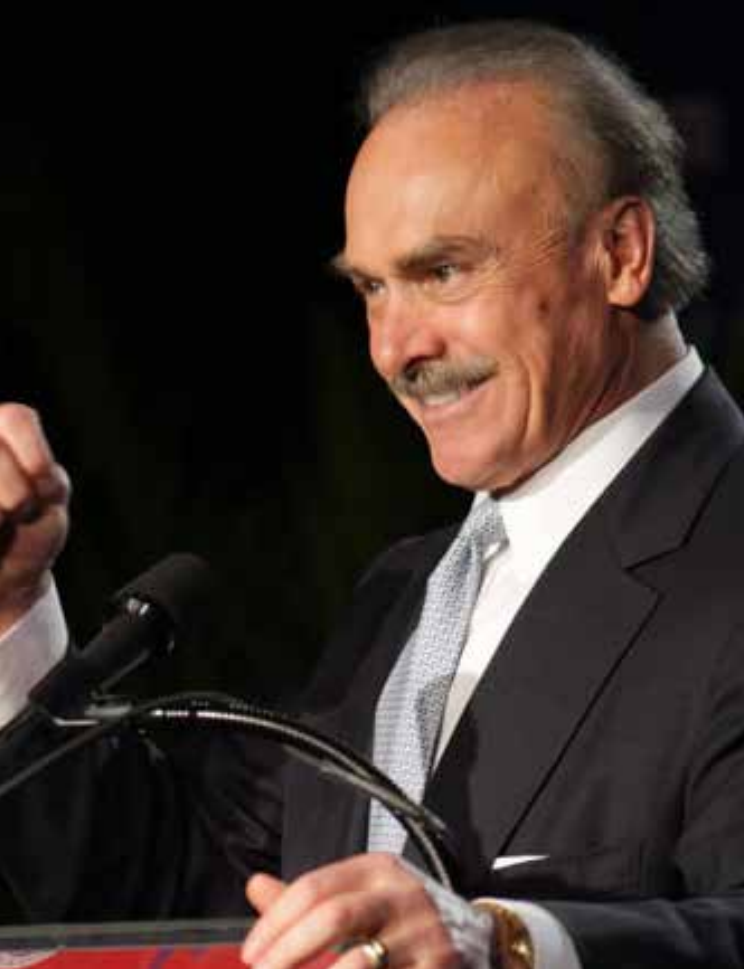


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2016 conference

The 2016 Wiring Harness Manufacturers Association (WHMA) annual conference is scheduled for 23rd to 25th February 2016 in Scottsdale, Arizona.

The Chaparral Resort will serve as conference headquarters, and accommodation will be available at the Chaparral suites.

A highlight of the 2016 event will be a keynote presentation by Rocky Bleier. Mr Bleier's story of courage on both the football fields of America and the battlefields of Vietnam contains a motivational message of how ordinary people can become extraordinary achievers, and defines success in the new American century.

Other topics scheduled for discussion

at the conference include: Greg Lane on "Leadership's role for building lean into the business", with a second session on "Creating a culture of continuous improvement". Dr Thomas Choi will host a session on supply chain management, and Cameron Hefferman will give a presentation entitled "Overcoming challenges with harnessing in Mexico".

Full details are available from the association website.

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Moving down to Mexico

TPC Wire & Cable Corp has completed its acquisition of Enersave Wire & Cable (EWC). Founded in 1978, TPC is a producer of high performance wire, cable and connectors for harsh environments in a wide range of industries.

The acquisition of EWC aligns with TPC's strategy to expand its assembly services and product inventory into Mexico, and will accelerate TPC's growth in Mexico and Latin America through the addition of direct sales, local distribution and cable assembly capabilities.

TPC was acquired by Audax Private Equity in May 2015. Enersave is TPC's first acquisition under the Audax ownership. The leadership team of EWC, Raul Ortega Sr and Raul Ortega Jr, will remain with the business.

"We are excited to have Enersave become part of the TPC family," said Steve Michalski, CEO of TPC Wire & Cable Corp. "The Ortegas have done a marvelous job of growing the TPC brand in Mexico and we are looking forward to continuing their endeavors with this new partnership.

"The acquisition allows us to increase our inventory of harsh industrial cables and accessories to better serve our customers in Mexico."

Automotive materials study

A study by Transparency Market Research offers forecast and analysis of the automotive wire and cable materials market. The report, "Automotive wire and cable materials market - global industry analysis, size, share, growth, trends and forecast, 2013-2019", is available from the company's website.

Automotive wire and cable materials include polyphenylene ether, cross-linked polyethylene, thermoplastic polyurethane and polyvinyl chloride. The 89 page research study segments the overall market on the basis of products, and cross-examines the product segments in four geographical regions: North America, Europe, Asia-Pacific, and the rest of the world.

Briefly, Asia-Pacific apparently dominates the automotive wire and cable materials market in terms of consumption. North America, where a strengthening economy has supported the demand for automobiles, is the second-largest market for automotive wire and cable materials, followed by Europe. A majority of leading automobile manufacturers are based in Europe, bringing a degree of advantage to the market. Nevertheless, the demand for these vehicles more often than not stems from other geographies such as Asia, thereby distributing the consumption of automotive wire and cable materials and sharply reducing the automotive demand from within Europe.

The growth of the market is challenged by environmental concerns associated with the recycling and disposal of automotive wire and cables. However, factors such as rising in-vehicle wiring applications, favorable government initiatives to promote hybrid and electric cars, and the introduction of bio-based plasticizers, are expected to propel automotive wire and cable materials in the coming years.



Nuclear service resumed

Susquehanna Steam Electric Station from Council Cup 1 by Jakec - Own work. Licensed under CC BY-SA 4.0 via Commons

Operators at the Susquehanna nuclear power plant have reconnected Unit 1 to the regional power grid.

The Unit 1 reactor shut down automatically on 12th November during routine equipment testing. Plant systems and equipment performed as expected in response to the shutdown.

A thorough investigation by plant staff determined the reason for the shutdown to be an electrical problem that caused a valve to close unexpectedly during testing. Eight large valves control the flow of steam from the reactor to the turbine generator.

While workers evaluated, repaired and tested the valve, Susquehanna took

the opportunity to complete other maintenance tasks that can only be carried out when the reactor is not operating.

“We made the choice, while the unit was out of service, during a period of mild fall weather and lower wholesale power prices, to advance some maintenance tasks we had planned for the refueling outage next spring,” said Jon Franke, Susquehanna site vice president. “Completing that work now enhances the unit’s reliability for the coming winter, when demand for electricity is increased.”

Meanwhile, Susquehanna Unit 2 continued to operate safely at full power.

Technology is out of sight

SolarWindow Technologies Inc, a developer of solar electricity-generating coatings for windows on skyscrapers and towers, has announced a process breakthrough that will enable the development of invisible wires to improve the transmission of electricity from the surface of its power-generating glass.

According to the company, its first generation, invisible wire microgrid was already the thinnest system ever developed for its SolarWindow technology.

“Our previous system was widely acknowledged as a technical breakthrough. However, we’ve always wanted to push the boundaries, and have now done so with wires as thin as human hair. Moving forward, our technology team has vowed to attempt even finer wiring grids in order to help them eventually disappear to the human eye,” commented John A Conklin, president and CEO of SolarWindow Technologies.

Today’s invisible microgrid wires are thinner than an average human hair. When applied in a grid pattern, the virtually invisible wire system increases power and performance while improving the visual aesthetics of SolarWindow systems.

“We’re grateful for the support of the development team at the US department of energy’s national renewable energy laboratory (NREL),” said Dr Scott Hammond, principal scientist, SolarWindow Technologies. “Specifically our work in collaboration with Dr Maikel van Hest, senior scientist, and Talysa Stockert, research associate at NREL, has led to today’s technology advancement.”



Double first

MidAmerican Energy Company's new wind farm in Adams County, Iowa, will include the company's first concrete wind turbine tower. Once installed, the wind turbine itself will represent another first as the tallest land-based turbine built in the country to date, designed to capture more wind power at higher altitudes.

"Advancements in turbine design and construction techniques are opening up new opportunities for development of renewable resources," said company VP for renewable energy, Mike Gehringer.

MidAmerican Energy has contracted Siemens for the supply and construction of its new concrete tower design. Mr Gehringer said both companies view this tower as a prototype that could serve as the model for other concrete turbine

towers at future wind farms. It could open up new low-to-medium wind resource areas in Iowa for future wind development.

"The process of building a concrete tower is quite different from the process we use to construct turbines with steel towers," Mr Gehringer said. "Instead of building the tower sections in a factory and transporting them to the site to be fitted together, crews pour the concrete in segments and manufacture the tower on site."

The 2.3MW concrete tower turbine at the Adams wind farm will measure 377 feet from ground to hub, compared to 263 feet for most of the turbines in use at other MidAmerican Energy wind farms. With blades extended, the turbine will reach a height of 554 feet, making it about as tall as the Washington Monument.

Spring provider looks to expand

MW Industries, a provider of precision components including highly engineered springs and fasteners, has announced the acquisition of Servometer and BellowsTech, manufacturers of precision engineered bellows and electroformed components.

New Jersey company Servometer designs and manufactures miniature bellows, flexible shaft couplings, contact springs and bellows assemblies. BellowsTech, based in Florida, markets edge welded bellows and assemblies, encompassing a wide array of alloys and dimensional configurations. The companies' product technologies complement each other in terms of size, compatibility, pressure, and temperature capability.

Bill Marcum, CEO of MW Industries, said: "The Servometer and BellowsTech brands have an excellent reputation for quality, technology, material flexibility and engineering expertise. The company's products and workforce are highly complementary to our existing business base, and as part of the MW integrated family of companies, we believe that both Servometer and BellowsTech are better positioned to penetrate and expand in our existing markets, including aerospace and aviation, semiconductor, medical, energy, and other industrial markets."

MW has completed a number of acquisitions to strengthen both its product offerings and customer base, and is currently evaluating other possible transactions.



Can-Eng Furnaces

Fastener furnace contracts

Can-Eng Furnaces International has recently received four contracts for the design, manufacturing and commissioning of its 6,000lb/hour continuous mesh belt atmosphere furnace systems. Can-Eng focuses on the development of high volume continuous industrial furnaces and automated heat-treating systems for the processing of fasteners.

The four ordered systems are designed to provide atmosphere hardening and tempering of high volume fasteners, and include a computerized loading system, mesh belt controlled atmosphere hardening furnace, oil quench system, pre- and post-wash systems, and enhanced part tracking. The systems are designed with an integrated combustion

system that integrates newly developed burner technology. All are fitted with a modern radiant tube heating system, which provides improved system efficiencies and reduced emissions.

Can-Eng's continuous mesh belt atmosphere furnace systems are fully compliant to meet the requirements of AIAG CQI-9 heat treatment system guidelines.

Gathering cable resources

General Cable Industries Inc will invest \$2.5 million to expand and relocate its production to Lawrenceburg, Kentucky. The company announced in May that its manufacturing facilities in Franklin, Massachusetts, and Des Plaines, Illinois, would be closed and relocated, and has now confirmed that the facilities will be consolidated into its existing facility in Lawrenceburg.

The relocated facilities principally produce data communications cables. The company estimates that it will be transferring around half of the production volume and manufacturing assets to Lawrenceburg.

“Industry trends sometimes require us to consolidate operations in order to successfully compete in the market,” said Paul Furtado, vice president and manufacturing team leader, communication and assemblies plants. “While that’s a difficult situation, we are pleased that the Lawrenceburg team is ready and able to take on additional product lines.”

“The skills of the Lawrenceburg team and their solid performance were major factors as we considered our consolidation options,” said Mark Thackeray, senior vice president, global manufacturing and North American operations. “We look forward to much success at the Lawrenceburg, Kentucky, facility.”

EUROPE NEWS

CABLE INDUSTRY "READY TO DELIVER"

Raul Gil, chairman of the Europacable utilities board, represented Europacable at the final eHighway2050 conference, "Unveiling the electricity highways project results: Europe's future secure and sustainable electricity infrastructure". After 40 months of investigation the commission-funded project concluded that close to zero emissions by 2050 demands an investment in electricity transmission of between €100 billion and €400 billion.

"Looking into Europe's future grid, partial undergrounding and submarine cables complementing overhead lines in sensitive areas will play a vital role in grid deployment to enhance public acceptance of power transmission lines. We hope that all stakeholders understand this message in Europe," Mr Gil stated in his opening message to an audience of senior policy makers, regulators and technical experts from across Europe.

The e-Highway2050 clearly identified that Europe needs to expand its electricity transmission grids by 2050 to match the increase in electricity generation, notably wind and solar. "Whatever the European energy landscape will look like in 2050, it appears indispensable for the security and affordability of the power system to reinforce the connections of the north and the south with the central continental areas in Europe," said Gerald Sanchis, e-Highway2050 coordinator.

"Industry is here to deliver Europe's future grids," was Mr Gil's key message. "With over 70,000 people generating a turnover over €20 billion in 2014, the wire and cable industry will not be the bottleneck to building Europe's 2050 power transmission grids – neither technological nor capacity-wise. We are ready to deliver."



Acquisition offers complete service

Modern Networks has acquired the business of RADD Telecoms – a provider of cabling infrastructure, data and fiber optic cabling services. The acquisition will allow Modern Networks to offer clients a complete range of services, from construction and first-fix infrastructure through to the handover of enterprise networks and data center solutions.

“Having worked with Richard Brewster and his team at RADD Telecoms for many years we are excited by the opportunities that this acquisition brings to the customers and employees of both organizations,” said Matt Reeve, CEO of Modern Networks.

Modern Networks and RADD Telecoms now have the capability to deliver major cabling infrastructure projects with advanced network and data center solutions as single work packages, without the use of a third party.

Richard Brewster, RADD Telecoms director, said: “We feel this will be of huge benefit to many of our existing client base who historically would need to deploy the services of several companies to achieve their final goal.”

It's a gas (insulated system)

ABB has an order worth around \$40 million to supply gas insulated switchgear (GIS) to two substations and help strengthen grid reliability in New Jersey, USA. The substations are part of a program by Public Service Electric & Gas (PSE&G) to protect and strengthen utility substations against increasingly frequent severe weather conditions and enable reliable and resilient energy delivery.

The 50-year old air-insulated switchgear (AIS) in Bergen County's Hillsdale substation is among the facilities ear-marked for upgrade. GIS technology was chosen for its robustness, reliability and significantly smaller footprint compared to conventional AIS.

ABB's order scope will include design, supply and commissioning of a 420kV GIS type ELK-3, a compact and modular GIS solution in which key components, such as switches and conductors, are protected with insulating gas.



Improving power exchange

Isolux Corsán, with its consortium partner Siemens, have received a contract to design, build and install HVDC equipment between Ethiopia and Kenya. The project will improve the exchange of energy between both countries, increasing power availability at both ends and improving the use of power generation resources in the area.

The total value of the project, financed by the World Bank and the African Development Bank, is worth around \$450 million. The order was placed by the Ethiopian Electric Power Corporation and the Kenya Electricity Transmission Co Ltd.

The HVDC bipole will have a capacity of 2,000MW and will link two converter stations in Suswa (Kenya) and Sodo (Ethiopia) with a 1,000km DC power line. Siemens will supply the complete HVDC core technology, while Isolux Corsan will be responsible for the construction, installation and equipment in the converter and AC substations.

This new HVDC contract is Isolux Corsán's first in Ethiopia, and reinforces its presence in Kenya. The project is scheduled to go into operation by the end of 2018.



Solar hits the roof

Tata Steel has plans to create one of the world's largest roof-based solar energy projects.

Working with Pure Energie, Tata Steel will mount 80,000 solar panels on the factory roofs at its IJmuiden, Netherlands steelworks – an area equivalent to 40 football pitches. The project will have a 22MW capacity.

Hans Fischer, chief technical officer of Tata Steel's European operations, said: "This project will further minimize our carbon footprint. Since 1990 we have reduced the amount of energy needed to produce steel by more than 30 percent at our IJmuiden site, which is already one of the world's most energy-efficient steel plants."

Tata Power Solar is in discussions to supply the solar panels in what would be its biggest international project. Pure Energie will fund the development, which will begin in spring 2016 and is expected to take two years to complete. The generated energy will be used in steel manufacturing processes.



Baltic upgrade

Ekinops, a supplier of optical network equipment, has announced that the Linxtelecom ring is now operational, connecting Tallinn in Estonia, Helsinki in Finland, and Stockholm in Sweden.

Linxtelecom contracted Ekinops to replace an existing optical network with a 4TB submarine optical ring to meet growing demand from customers. Linxtelecom required a network to provide a range of multi-protocol services, including 10G and 100G ethernet, STM64, 8G, and 10G fiber channel.

The company was also looking to reduce its operational expenses. The Ekinops solution offers compact size and very low power consumption, ideally suited to meet Linxtelecom operational objectives. In addition, because of its ability to transmit over long distances, the Ekinops gear eliminates the need for signal regeneration in intermediate sites and allows connectivity of spans up to 220km.

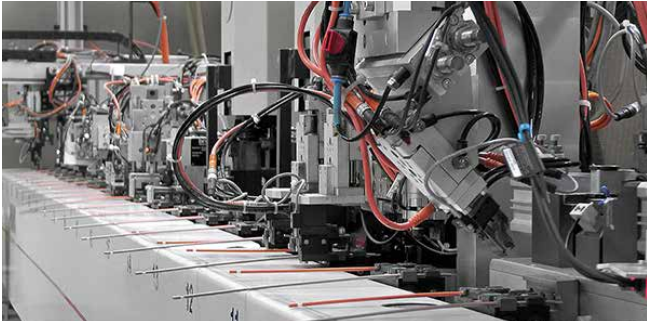
China contract

Prysmian Group has a contract for the design, supply, installation and commissioning of a submarine power cable link for the second interconnection between Hainan island and the Chinese mainland. The contract was awarded by Hainan Second Cross-Sea Interconnection Tie Project Management Co Ltd (a subsidiary company of China Southern Power Grid) and is said to be worth over \$140 million.

The new link will work in conjunction with the existing 500kV cable circuit between Guangdong and Hainan power grids.

The new interconnection comprises four HVAC 500kV single-core self-contained fluid filled cables, laid along a 32km route under the Qiongzhou Strait in southern China. The cable system will link the Gangcheng transformer substation in Guangdong's Zhanjiang to the Fushan transformer substation in Hainan's Chengmai county, and have a transmission capacity of 600,000kW. Cables will be operated in AC configuration, but can also work in DC configuration.

The cables will be produced by the group's submarine cables facility in Arco Felice, near Naples, and marine installation operations will be performed by the group's cable-laying vessel, *Giulio Verne*.



Czech mate

The German components maker KE Elektronik has opened a new 6,400m² factory at Ostrov, about 130km from Prague, in the Czech Republic. The investment is worth around \$13.8m, of which around \$7m has been used to establish the facility, and the remaining \$6m to purchase new production equipment.

KE Elektronik specializes in the fields of cable assembly, plastics and connection technology, working with horizontal and vertical molding machines fitted with clamping forces of between 400kN and 2,000kN.

In addition to the factory in the Czech Republic, which is owned and operated by its local subsidiary, KE Ostrov-Elektrik, KE Elektronik has a further six production facilities located in Slovakia, Macedonia, Tunisia, China and Mexico. The factories have a total workforce of around 2,000, supplying wire harnesses and injection molded components to the automotive and aviation industries.



Export order

As part of a consortium with Dutch marine contractor VBMS, nkt cables is contracted to deliver and install the export cable system for the Galloper offshore wind farm.

The order comprises 94km of 132kV high voltage submarine cables, with the first phase to be delivered for installation in late 2016. The second and last phase will be delivered in 2017.

nkt cables CEO Michael Hedegaard Lyng said in a statement: "The offshore market is one of nkt cables' strategic focus areas and is characterized by a high level of activity. It is a market which holds attractive prospects for us in the coming years, and it constitutes a key element in our recently launched Excellence 2020 strategy."

The Galloper offshore wind farm, sited 27km off the coast of Suffolk, UK, in the Thames estuary, will have a capacity of 340MW. It will be located close to its existing sister project, Greater Gabbard, and is scheduled to begin operation in 2018.



CabWire 2016 success

More than 100 delegates from the USA, Canada, India, Turkey and throughout Europe attended the 7th biennial CabWire conference at the Congress Center, Düsseldorf on 3rd November.

Delegates heard presentations from eminent industry professionals in both ferrous and non-ferrous sectors, including industry forecasts, explanations of new techniques and processes.

These included a keynote speech by Dr Klaus Probst, UK, who talked about success factors for sustainable international growth, and Rob Daniels, principal consultant of independent consultancy CRU Group, who presented a paper in the non-ferrous program on recent developments in the global cable industry and its future outlook.

The conference included a table-top exhibition, which gave delegates the opportunity to network with fellow professionals and display products and information about their companies.

Apart from the conference, delegates enjoyed a networking evening at the Zum Schlüssel Brewery, and a visit to the new wire rod mill at Duisburg of ArcelorMittal, a leading ferrous plant.

IWMA AGM and meet the industry luncheon

The 45th Annual General Meeting of the International Wire & Machinery Association will be held at The Mere Golf Resort & Spa, Knutsford, Cheshire, UK, starting at 11.30am on Wednesday, 3rd February 2016.

The AGM immediately precedes the “meet the industry lunch”, an excellent networking event where leading wire and cable producers take lunch as guests of the IWMA.

The Executive Board has approved the subsidy of the luncheon to include pre-lunch drinks. A cash bar will be available afterwards for those wishing to continue discussions.

All guests and members will have table places allocated so as to sit with their guests, and the table numbers and full guest list will be distributed prior to the lunch.

If you wish to book for this popular event, please visit www.iwma.org and complete the booking form and return as soon as possible, no later than 15th January 2016.

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Remember to follow the IWMA LinkedIn page to ensure you are kept up to date with all activities, whether it is announcements about exhibitions, conferences and events or the educational trust, as well as member news.



ASIA & AFRICA NEWS



PRISON BREAK

Following a private-public partnership between Spark Minda, Ashok Minda Group, Yerwada central prison and Mahindra and Mahindra Ltd, an assembly plant and production unit has been established inside the Yerawada jail. The facility has been producing wiring harnesses since February.

“It is our endeavor to bring an effective change in the inmate's outlook towards life, and to give them a chance [for respectability],” said N K Taneja, group chief marketing officer, Spark Minda, Ashok Minda Group. Spark Minda first initiated a wiring harness plant venture in 2005 in Germany, and in Delhi in 2014.

“The quality of the harnesses made by the Yerwada jail inmates is excellent, or even better, than other plants. We are hoping to increase the number of inmates working here to about 150 to 200,” said Nitin Tikle, vice president, SSBU, Mahindra and Mahindra Ltd.

Thirty prisoners convicted for seven or more years were selected to work at the facility in Yerwada, Pune, in Maharashtra, after undergoing a color blindness test.

After three months of training the inmates are producing 80 units per day. Each unit costs Rs 200, of which Rs 55 (around \$0.83) goes to the worker, 10 percent to the Prisoners' Welfare Fund and the rest to the government. The inmates receive certificates at the end of their term.

“We have seen a visible change in the inmates. They are psychologically uplifted and have a greater sense of self-esteem now that they are skilled workers and are earning money,” added Dr B K Upadhyay, of Maharashtra prison department.



Myanmar investment

LS Cable & System has won a \$13 million contract with Myanmar's national energy authority to supply high voltage electric cables.

The Myanmar government is expanding the country's electricity supply infrastructure, and is expected to spend \$9 billion between now and 2031.

Aiming for integration

Fujikura Ltd and Mitsubishi Cable Industries Ltd are to examine the integration of the Fujikura Dia Cable Ltd (FDC) industrial wire and cable business.

Since 2005, when FDC, a joint venture between Fujikura and Mitsubishi Cable for wire and cable sales for construction and electric works, was established, the domestic market for industrial wire and cable has matured.

With no significant increase in demand expected in the medium to long term, Fujikura and Mitsubishi Cable are looking to expand the scope of integration to FDC concerning sales of industrial wire and cable as well as manufacturing.

Production sites expected to be subject to the integration of manufacturing are Fujikura's Suzuka and Numazu works, and the subsidiary Shinshiro Cable Ltd, and Mitsubishi Cable's Kumagaya, Fukui and Amagasaki facilities.

Fujikura and Mitsubishi Cable aim to finalize the integration by April 2016.



Indian solar supply

Mercom Capital Group has released its quarterly update on the Indian solar market.

The report forecasts around 2,150MW in solar installations for the 2015 calendar year and expects installations in 2016 to reach approximately 3,645MW, representing significant year-on-year growth.

“There have been a number of important energy-related policy announcements recently, [and] increased activity on the ground with tenders and auctions beginning to occur more frequently,” said Raj Prabhu, CEO and co-founder of Mercom Capital Group.

Year-to-date solar installations in India stand at 1,652MW, with cumulative solar installations in the country totaling 4,816MW.

Ghana solar project

A 20MW solar PV power generating plant, considered to be West Africa’s largest, has been completed at Onyadze in the Gomoa East district of the central region, and is ready to feed into the national grid.

The Chinese investors in the \$20 million project, BXC Co Ltd, took the power minister, Dr Kwabena Donkor on a visit to the project site to update him on progress. Commissioning has begun, to the point where the connection of solar power to the ECG system is being tested, Michael Yong, deputy MD of the company, told the minister.

To encourage investment in solar energy, the government of Ghana has developed a generous feed-in tariff and a short lead time for construction.

This, the government believes, should be sufficient motivation for the private sector to help government achieve its 2020 goal of 10 percent penetration of renewables in the energy mix.

“This is a very good example of what the private sector, well-motivated, can do, and our aim is to see this replicated across the country,” the minister said.



Chinese steel demand still falling

Shanghai steel futures fell to a record low in mid-November, deepening losses for producers as consumption continues to shrink in China. Industry group China Iron and Steel Association Steel said consumption in China dropped 5.7 percent to 590.47 million tonnes in the period January to October, as the slowing economy continues to dampen industrial activity.

Chinese steel mills are limiting stocks of iron ore in response to weak demand, with many producers facing losses that are forcing them to either cut output or close operations.

Rebar, the most traded construction steel product, fell to an all-time low of \$275 a tonne on the Shanghai Futures Exchange.

Stocks of iron ore at Chinese ports continue to rise, with weekly inventory up 550,000 tonnes to 86.55 million tonnes in mid-November, the highest since May 2015, based on data compiled by the consultancy SteelHome.

Hangzhou expansion

Lorom Europe has announced the construction of a new manufacturing facility, scheduled for completion by the end of 2015 and in full production in early 2016.

The new 360,000ft² facility is an addition to Lorom's newest factory complex in the suburban area of Hangzhou, Qian-Nong, China. Lorom will implement its EMAXX[®] high-speed datacenter cable assemblies in this facility, as well as other high end products.

"With [the] introduction of new product technology for 100G datacenter application, our automated assembly lines in [a] semi-clean manufacturing environment will be a major differentiator...to our customers," said Patrick Lawrence senior, VP of Lorom.

Y T Yuan, CEO of Lorom, added: "As we expand, and grow our high end datacenter business, establishing a world class facility is an important milestone in our effort in becoming a global market leader."



A piece of the jewellery from Chinese artist Ai Weiwei. Photograph courtesy of De Zeen Magazine



Rebar – worth its weight

Chinese artist Ai Weiwei has partnered with a London jewellery gallery to create what are described as “wearable sculptures”, designed to look like rebar.

The pieces recall Weiwei’s installation *Straight* (2008-2012), which featured piles of steel reinforcing bars purchased from scrapyards after the Wenchuan earthquake in China.

His *Rebar in Gold* bracelets, created with the Elisabetta Cipriani gallery, come in three lengths, and feature the ridged texture that distinguishes the reinforcing rods. The artist cut each piece from a single gold rebar, and bent them to be wrapped around the arm.

The gallery specialises in jewellery by contemporary artists and, of Weiwei’s latest collection, says the artist selected gold to contrast with the destruction of the earthquake, while serving as a “delicate memorial” to the life lost during the disaster.

The metal’s softness allows the wearer to adjust the items to be worn around their finger, wrist or neck, depending on the size of the piece.

High-speed deal

In a deal valued around \$120 million, a 50:50 joint venture between Vocus Communications and Nextgen Networks is to build the Australian Singapore Cable (ASC). Vocus has confirmed that the 4,600km ASC will connect Australia to Singapore and Indonesia, and is believed to be the first 100GB per second high-speed connection between Australia and southeast Asia.

Construction is scheduled to begin in early 2016 and will take approximately 18 months to complete.

PRODUCTS
MACHINES
TECHNOLOGY



Phase stable cable

Pasternack has launched a line of ruggedized phase stable VNA test cables, operating up to 40GHz. The cables are designed to withstand the rigors of test lab use or production testing for 50 ohm communications systems.



▲ New cables from Pasternack

The new phase stable cables can be ordered with male or female versions of SMA or type-N connectors for cables operating to 18GHz, 2.92mm connectors for cables operating to 26.5GHz, or 2.4mm connectors for test cables performing up to 40GHz. Torsion-resistant connector heads are directly attached to stainless steel conduit style armoring, providing a rugged design for up to 5,000 mating cycles.

The cable's armoring enhances amplitude and phase stability by preventing the stress caused by over bending while maintaining the flexibility required for testing in a laboratory environment.

Pasternack's new VNA test cables have a maximum phase change of ± 2 degs at 18GHz, ± 3 degs at 26.5GHz and ± 5 degs at 40GHz with typical calibration procedures. Minimal phase change is essential because

amplitude and phase variation following VNA calibration can cause inaccurate S parameter measurements.

Steve Ellis, interconnect product manager at Pasternack, said: "These test cables are rated to 5,000 mating cycles and 75,000 flexure cycles while still exhibiting excellent amplitude and phase stability to the given frequency."

Wire saving EDM

Makino has launched a new product in wire EDM technology, the U1310 wire EDM machine. Designed to substantially improve ease of operation, machining speed and accuracy in large workpiece applications, the U1310 has been designed for a wide range of industries.



▲ The U1310 wire EDM machine designed to substantially improve ease of operation

"Too often, manufacturers assume that the larger the workpiece, the less precise the performance," said Brian Pfluger, EDM product line manager at Makino. "The U1310 debunks this myth by providing superior levels of precision even when compared to smaller travel EDM machines. With features like Makino's high energy applied technology (HEAT) and fixed table design, operators can expect faster machining speeds on even the most

difficult cutting applications and larger workpieces.”

The U1310 offers X-, Y- and Z-axis travels of 1,310mm by 1,010mm by 520mm, or a larger full stroke 620mm Z-axis. The standard machine configuration can accommodate a maximum workpiece size of 2,000mm by 1,600mm by 500mm and maximum workpiece weight of 6,000kg.

To reduce the operation interval for wire spool replacement, the machine is standard with a large capacity wire spool unit that accommodates spool sizes up to 30kg.

A combination of machine rigidity with machining technology and control software delivers exceptional roundness, and shape accuracies within $\pm 3\mu\text{m}$. The machine is capable of operating wire sizes of 0.2, 0.25, and 0.3mm diameter.

The U1310 is expected to enable machining times up to 43 percent faster, with up to 33 percent reduction in wire consumption, compared with previous technology.

Installing non-assembled cables

In addition to its CES frame for pre-assembled cables, Phoenix Contact now offers a solution for cables without a connector – CES Multigates.

The new metal-reinforced cable entry plates enable quick and inexpensive insertion, through the wall, of non-assembled cables. Using this method, up to 37 cables can be reliably installed. Designed with a double membrane seal, IP 66/67 protection, and an operating temperature range from -40°C to $+100^{\circ}\text{C}$, the cable entry plates can also be used for outdoor applications.

The entry plates are listed according to UL 94 V-0 and are oil-resistant.



▲ CES Multigates from Phoenix Contact. Photograph courtesy of Phoenix Contact

The system can be used for cables with a diameter of between 5mm and 60mm. Various models with different cable assemblies ensure that the right combination of cables is quickly installed, saving both time and space. In conjunction with module plates, the cable entry plates can be mounted directly onto the base of the control cabinet.

Tray cables

The Lapp Group has released its new Olflex tray VTC, a UL TC-ER and CSA CIC rated multi-conductor cable designed for plant installations and factory expansions.



▲ The new Olflex tray VTC from the Lapp Group

The new cable targets the cost-to-performance gap between stiff-commodity PVC-nylon tray cables and premium tray cables, and has an unshielded construction that includes finely stranded bare copper conductors, specially

formulated PVC insulation and a PVC black jacket.

Other features include a minimum bend radius of four times cable diameter; an operating temperature range of -5°C to 90°C for flexible use and -40°C to 105°C for stationary use; UL wet rating of 90°C ; a test voltage of 2,000V; and UV resistance.

Performance monitor

Siemens offers a portfolio of power grid monitoring functions to aid grid operators in their efforts to determine, adjust and improve grid quality.

The company has now added to its range with the introduction of the short circuit and ground fault detection device Sicam FSI (fault sensor indicator). While the digital short circuit monitoring devices Sicam FCM (feeder condition monitor) and Sicam FPI (fault passage indicator) are deployed in cable networks, this new system reports short circuits and ground faults in the medium voltage overhead line grid.

Siemens developed the device for quickly locating and reporting faults in the overhead line grid and designed it to be installed directly onto the overhead line.

Sicam FSI measures and records the momentary line current and voltage values for the purpose of identifying short circuits and ground faults in the medium voltage overhead line grid. From this information, the device derives minimum, maximum and mean values to enable display of faults based on identified over-currents and under-voltages.

Siemens supplies the short circuit monitoring system in two versions: with local visual

displays (LED) and with additional communication capabilities. The device establishes communication with the upstream Sicam fault collector gateway, mounted at the foot of the pylon, via an encrypted radio link.

The grid operator installs three Sicam FSI devices for each three-phase cable system. Sicam FSI is said to function maintenance-free with a battery life of ten years.

Offshore reeling cable

Cable manufacturer SAB Bröckskes has launched a new DNV-GL approved maritime cable, DR 750 P Offshore.

Constructed with reference to the international standard IEC 60092 for ship cables, DR 750 P is designed for reeling applications with high mechanical stress such as offshore cranes, deck machines, working platforms and lifts on ships and offshore facilities.



▲ The new DNV-GL approved maritime cable, DR 750 P Offshore

This low weight cable is flame retardant and self-extinguishing, with oil, chemical and MUD resistance. It will operate within a temperature range of -40°C to $+60^{\circ}\text{C}$ under dry or damp climatic conditions, while retaining its high reeling and unreeling strength.

| | |
|--|--------|
| ABB | 28 |
| Alcoa | 9 |
| Aqua Comms Ltd | 12 |
| Ashok Minda Group | 35 |
| BellowsTech | 23 |
| BXC Co Ltd | 37 |
| Can-Eng Furnaces International | 24 |
| Digital Realty Trust Inc | 12 |
| Ekinops | 30 |
| Enersave Wire & Cable | 18 |
| Europacable | 27 |
| Fujikura Ltd | 36 |
| General Cable Industries Inc | 14, 25 |
| Isolux Corsán | 29 |
| KE Elektronik | 31 |
| Lapp Group | 42 |
| Lorom | 38 |
| LS Cable & System | 36 |
| Mahindra and Mahindra Ltd | 35 |
| Makino | 41 |
| Mera Gao Power | 13 |
| Mercom Capital Group | 37 |
| MidAmerican Energy | 22 |
| Mitsubishi Cable Industries Ltd | 36 |
| Modern Networks | 28 |
| MW Industries | 23 |
| New York Wire | 10 |
| Nextgen Networks | 39 |
| nkt cables | 31 |
| NYW Acquisition LLC | 10 |
| Pasternack | 41 |
| Phoenix Contact | 42 |
| Prysmian Group | 30 |
| Pure Energie | 29 |
| RADD Telecoms | 28 |
| SAB Bröckskes | 43 |
| Servometer | 23 |
| Siemens | 29, 43 |
| SolarWindow Technologies Inc | 21 |
| Spark Minda | 35 |
| Tata Steel | 29 |
| TPC Wire & Cable Corp | 18 |
| UL Wire & Cable | 14 |
| VBMS | 31 |
| Vocus Communications | 39 |
| Wiring Harness Manufacturers Association | 16 |

EDITORIAL

Clinton Instrument Company..... 12

EuroWire magazine / WCA magazine 17

Gem Gravure 8

Messe Düsseldorf..... 11

NDC Technologies..... 7

Paramount Die 15

Zumbach 2

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: david@wiredinusa.com



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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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