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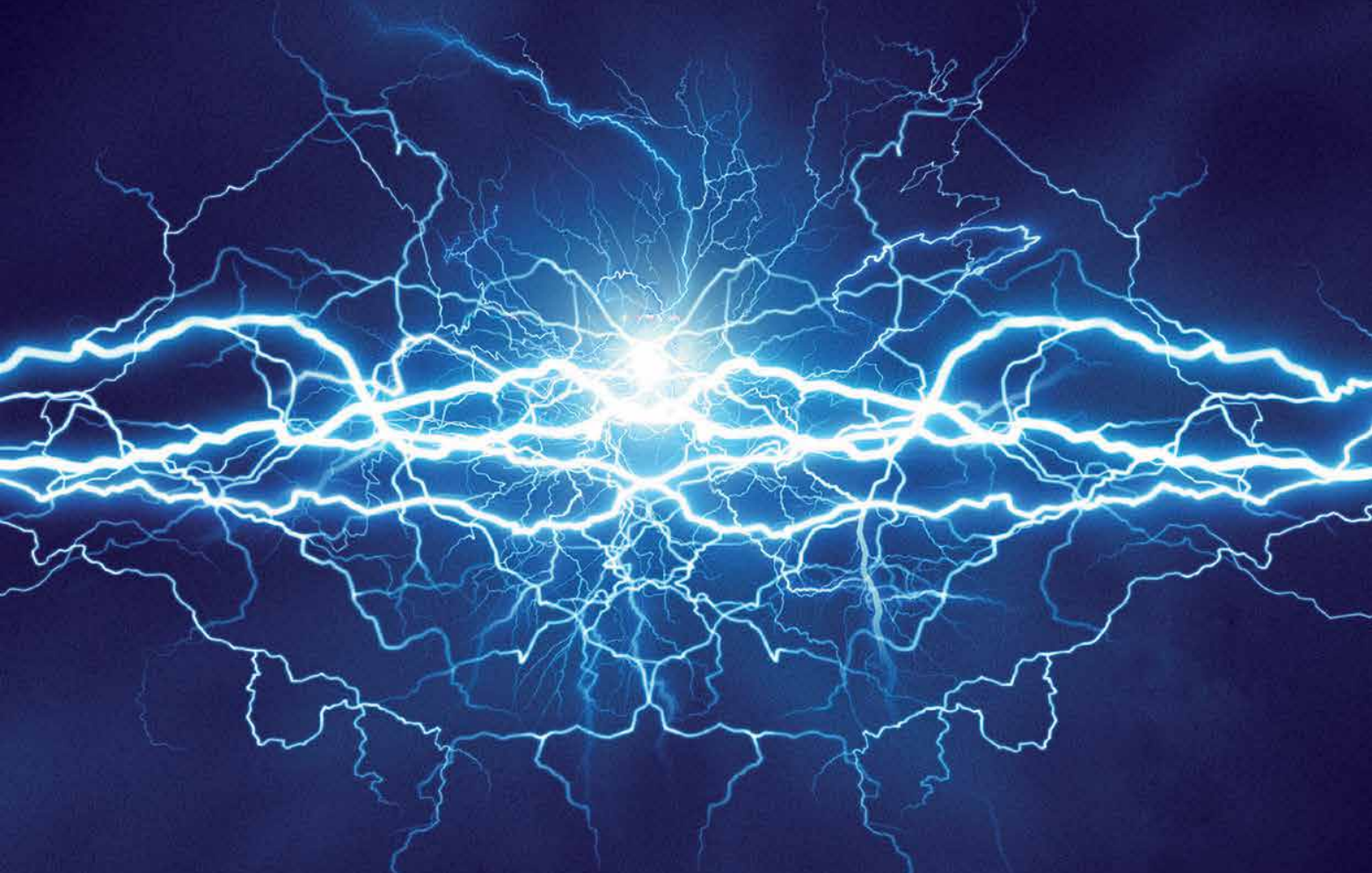
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#52 EDITOR

It's a month earlier, in a new city, the first under its new chief executive, and IWCS technical symposium is about to throw open its doors from 5th to 8th October.

This annual conference and exhibition is being held at the Hyatt Regency Hotel, Atlanta, USA, in a break from its more traditional homes in Providence, Rhode Island, and Charlotte, North Carolina.

It is, however, fair to say that the 64th staging is as eagerly anticipated as normal. Chief executive Dave Kiddoo, who has been in the role since January this year, said: "I've been very involved with IWCS for over 20 years, but in the last nine months or so I've gotten a whole new perspective and appreciation for this unique conference.

"I have an incredible sense of respect for the value that IWCS brings to our industry over the years, all the technical advances that have been presented here, the networking opportunities and more. I feel an incredible sense of responsibility to keep these expectations for IWCS growing. I am most pleased to say that I expect attendees are going to like the 2015 program as well as the earlier dates and new location in Atlanta this year."

Our coverage of the conference starts on page page 44. Please feel free to stop by booth 414 to collect your free CD copy of wiredInUSA and sister publications EuroWire and Wire & Cable ASIA.

David Bell
Editor

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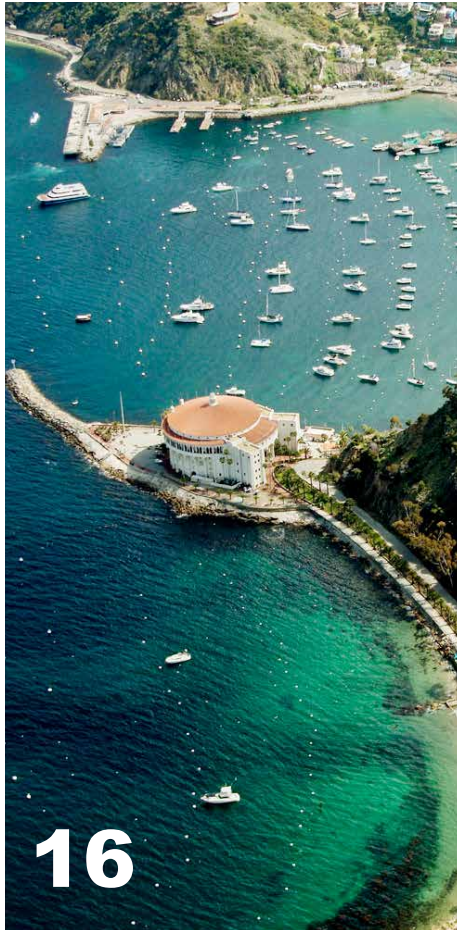
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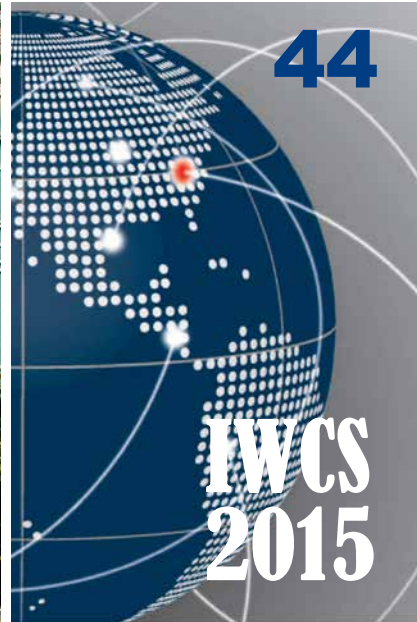
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ISSN 2046 - 9497
Publishers of Eurowire and
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2015



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DIARY SHOW EVENTS

2015

OCTOBER

5-8 October 2015

IWCS

Atlanta, Georgia, USA
Conference and exhibition

www.iwcs.org

OCTOBER

6-8 October 2015

wire South America

São Paulo, Brazil
Exhibition

www.wire-south-america.com

2016

APRIL

4-8 April 2016

wire Düsseldorf

Düsseldorf, Germany
Exhibition

www.wire.de

SEPTEMBER

26-29 September 2016

wire China

Shanghai, PR China
Exhibition

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OCTOBER

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Application Notes)

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MAKING THE NEWS

New circuit flying high

The Big Eddy-Knight 500kV line has crossed the Columbia River in the final stages of its construction near The Dalles, Oregon.

The new line, which spans 28 miles, will provide a route for power to cross between Oregon and Washington, bringing added capacity to an area that has seen rapid growth in renewable resources.

The Big Eddy-Knight project adds 42 circuit miles of high voltage wires and 128 new towers to the BPA system, with each tower carrying two circuits. The first circuit is the new BE-K line, which connects the existing Big Eddy substation just east of The Dalles with the new Knight substation in Goldendale, Washington.

The second circuit is a rebuilt portion of the Harvalum-Big Eddy 230kV line. While

the second line will operate at 230kV, the towers, conductor and hardware are being constructed at 500kV for additional capacity in the future.

To make the Columbia River Gorge crossing the design team created three towers that could withstand wind and ice storms while supporting nearly 300,000lb of bare wires. The crossing consists of two dead-end towers in either state and one 420-foot-tall suspension tower on the Oregon side.

A helicopter was used to string the 18 conductors, first flying a rope through a sheave on the suspension tower and then connecting it to the tower on the opposite side of the river; finally positioning the conductor after a series of rope and cable pulls.



Low voltage forecast to boom to 2020

Worth \$105.2 billion in 2015, the low voltage cable market is forecast to reach \$147.3 billion by 2020 while the medium voltage cable market is expected to hit \$48.8 billion by 2020. These are forecasts from the latest research from ReportsnReports.com, an online market research library.

The low voltage cable market is segmented into Asia-Pacific, North America, Europe, Latin America, and Middle East and Africa. The report includes country-level analysis based on installation. Asia-Pacific held the largest market share in the low voltage cables market in 2014, and is projected to grow at the highest CAGR due to the high urbanization and industrialization in countries such as China, India and Japan. China and India are among the fastest

growing economies contributing towards the growth of the low voltage cable market.

The low voltage cable market in Latin America and the Middle East and Africa regions is expected to grow at higher rates due to current expansion transmission and distribution projects.

The second research analyzes the medium voltage cable market. Findings indicate that Asia-Pacific dominated the medium voltage cable market in 2014, followed by Europe. The need for continuous supply of electric power in industry is expected to drive the medium voltage cable market in the Asia-Pacific region. Infrastructure construction in China, India, Indonesia and Malaysia is expected to boost the medium voltage cable market in the coming years.

Fastener industry fixed on Vegas

The 35th National Industrial Fastener & Mill Supply Expo, to be held at the Sands Expo & Convention Center in Las Vegas between 21st and 23rd October, has announced 815 exhibit booths for 623 companies from throughout the US, Europe and other countries including China, India, Israel, Japan and Korea.

Susan Hurley, Expo general manager, said: "We are ahead of our last year's same date exhibit space sales figures, plus we have gained 108 new companies and continue receiving new exhibit space applications regularly. We are delighted with the continuing growth of the Machinery & Tooling World area as well as the addition of more mill supply companies offering products of interest to today's multi-line distributors."

There will be a full day conference program on 21st October featuring topics of current interest and training and informative meetings offered by relevant institutions including the Fastener Training Institute, Women in the Fastener Industry, and the Young Fastener Professionals group.

The Fastener & Mill Supply Expo will be open from 9am to 4pm on Thursday, 22nd October, and from 9am to 1pm on Friday, 23rd October. An estimated 5,000 fastener distributors, importers, manufacturers, independent sales agents, the industry media, and delegates from over 35 countries worldwide are expected to attend.



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Growing plant

Southwire's Huntersville cable plant, recently bought from ABB, is already ear-marked for expansion. The company plans to add at least 20 employees to the existing staff at the facility within the next two years, said Charlie Murrah, president of the Southwire energy division.


"We bought this plant to grow this facility," Mr Murrah said, speaking at an open house in September that was streamed live to other Southwire plants.

The \$90 million high voltage cable plant, with its distinctive 430-foot cable insulation cooling tower, is located about 15 miles north of Charlotte. It was opened three years ago. The Huntersville plant will serve as a sister facility to a Southwire high voltage cable plant in Heflin, Alabama.

Southwire, with 2014 revenue of \$5.4 billion, is North America's largest electrical wire manufacturer with a wide range of cable products.

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Arizona sunshine

Sulphur Springs Valley Electric Cooperative (SSVEC) has signed a 20-year power purchase agreement with SunPower to build a 20MW (AC) solar photovoltaic power plant in Cochise County, Arizona. Expected to be operational by the end of 2016, the plant is anticipated to generate enough electricity to serve the needs of approximately 4,500 homes.

"This SunPower solar power plant supports SSVEC's commitment to community growth and quality of life, and brings us to about 95 percent of the renewable energy goal established by the Arizona Corporation commission that SSVEC is to meet by 2025," said SSVEC CEO Creden Huber.

"Today, power generated from solar power plants is cost-competitive with

power from traditional, fossil fuel burning plants," said Jorg Heinemann, SunPower executive vice president, global power plants and EPC. "We commend SSVEC for its leadership in including solar in its energy mix, enabling customers to take advantage of Arizona's abundant solar resource."

The project is expected to create 125 jobs when construction begins in early 2016.

SunPower plans to design and build a SunPower® Oasis® power plant system at the site. Oasis is SunPower's fully integrated, modular solar power block solution for utility-scale solar projects, designed to optimize land use and engineered for rapid installation.

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Island independence

Located 22 miles off the coast of southern California, Catalina Island relies on an independent microgrid to provide power. To manage the microgrid's multiple sources of electric generation more efficiently, Southern California Edison (SCE) is to employ automation technologies from Emerson Process Management.

Catalina Island's Pebbly Beach generating station is both an electric generating station and a liquefied petroleum gas distribution facility. Emerson's Ovation™ control system will help SCE manage six diesel generators, 23 microturbines and a battery storage system, as well as the island's LPG plant and water treatment and desalination facilities.

By giving SCE operators a concise view of all generating assets, the system will help determine the most efficient way to meet energy demands while reducing environmental impact. Emerson's SCADA technology will also help them maintain stable grid voltage while enabling rapid response to changes in demand caused by fluctuations during the tourist season.

"Catalina Island has always operated as a microgrid because of its location, but now we see these types of projects becoming more prevalent elsewhere," commented Bob Yeager, president of Emerson Process Management's power and water solutions.



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Good work by golfers

Specialist compounder S&E Specialty Polymers of Lunenburg, Massachusetts, recently raised \$24,000 at its third annual charity golf tournament.

The event was held on 20th July at the Sterling National Country Club in Sterling, Massachusetts. On 20th August, S&E executives Duane Shooltz and Jay Munsey presented the \$24,000 check to Life is Good Playmakers, a Boston-based non-profit organization that helps young children who have been hurt by trauma, such as violence, abuse, poverty and illness.

Shooltz, S&E's president and managing partner, said the event was "our best tournament yet." Pro-golfer Kyle Blakely appeared at the tournament on behalf of Charity Golf International. Numerous S&E customers and suppliers also participated, including James Monroe Wire & Cable Corp's president, David Fisher. "I look forward to participating once again next year," Mr Fisher said.

New Florida route

Internet traffic between North and South America will be taking a direct route through Jacksonville, Florida.

Cologix, a network-neutral interconnection and data center company, has announced that members of the Pacific Caribbean Cable System consortium have deployed Points of Presence (PoPs) in Cologix's JAX 1 data center. Cable Andino (Telconet Group), Setar and UTS all have PoPs connected to the landing station via dark fiber, creating disruptive access points for networks exchanging traffic to the Caribbean and South America.

Previously, Internet and network traffic for the Caribbean and most parts of South America had to traverse terrestrial networks down the Florida peninsula and across older subsea systems, primarily out of Miami. The PCCS cable system creates an alternate route for its customers and partners, which avoids the network congestion and cost of routing through Miami before jumping onto subsea express routes.

"We are including Jacksonville in our network design for strategic reasons, most notably that connecting into US fiber networks further north reduces hurricane risk and latency," explained Carlos Pazmino Campos, executive at Cable Andino and chairman of the PCCS consortium. "Jacksonville's location and position as a deep sea port made it a natural choice once we had determined that we wanted to create an alternative to Miami."

The PCCS cable is already operational and passing traffic.



Flexible fastener

A flexible bolt, originally designed for use in earthquake resistant structures, might have applications in medicine and robotics.

Developed by Professor Saeed Niku, at California Polytechnic State university, the flexible fastener consists of a shank, made from a strong, flexible material such as Kevlar or wire rope. The shank is wrapped with threads of coiled steel, resulting in a fastener

described as “axially rigid but laterally compliant”. The screw is secured in the same way as for conventional screws, but its flexibility will allow it to enter mis-matched holes, or to connect surfaces that are not parallel.

Originally patented in 2005, the C3RP research partnership is currently looking for a partner in the product.

Power to get moving?

Clean Line Energy aims to develop long distance HVDC transmission lines to carry cheap renewable power and still allow competitive pricing at delivery.

Wind projects in the Midwest can generate power at 1.5 cents to 3 cents per kilowatt-hour. Yet while these regions are sometimes curtailing wind, or are limited by transmission capacity, other regional grids are short of power. Demand is being driven by renewable portfolio standards, the Clean Power Plan, and the retirement of 50GW worth of coal power. The problem is how to move cheap wind power, cheaply.

Founder and president of Clean Line Energy, Michael Skelly, wants to connect low cost wind resources to major demand points. He believes that transmission is the key ingredient to getting more renewable energy on-line.

Skelly says: "We believe that an independent [company] is suited for the job," suggesting that most utilities are mandated to meet local needs and are not thinking of the challenge of interstate transmission.

Despite the dominance of alternating current on national grids, direct current is a more efficient way to move power over long distances, with about half the line losses and less infrastructure than a comparable AC system.

Skelly suggests that DC, unlike AC, "Allows complete control of power flow and prevents cascading outages." A Clean Line $\pm 600\text{kV}$ DC bi-pole transmission line will have a 3,000MW to 4,000MW capacity. The company founder is claiming an all-in delivered cost of "About 2 cents per kilowatt-hour to get to market."

Clean Line is backed by National Grid, Ziff Brothers Investments and Bluescape Resources.



“Make-A-Wish” gets its wish

Allied Wire & Cable's summer fundraising campaign for the Make-A-Wish Foundation raised a total donation of \$10,000 for its local chapter, gratefully accepted by the president of the local Make-A-Wish chapter, Dennis Heron.

The Make-A-Wish Foundation of Philadelphia, Northern Delaware and Susquehanna Valley approached Allied Wire & Cable for help in late July, reporting an unexpected influx of requests to grant wishes for children living with life threatening illnesses.

A long-time supporter of the charity, Allied launched a month's campaign to raise money from its community of customers, vendors, employees and friends. The wire and cable distributor promised to match the donated total.

The campaign ended on 21st August, raising \$3,680 through donations. With Allied matching the contributions dollar for dollar the total donation should have been \$7,720 but, because the average wish can cost up to \$10,000, Allied chose to more than double the raised amount.

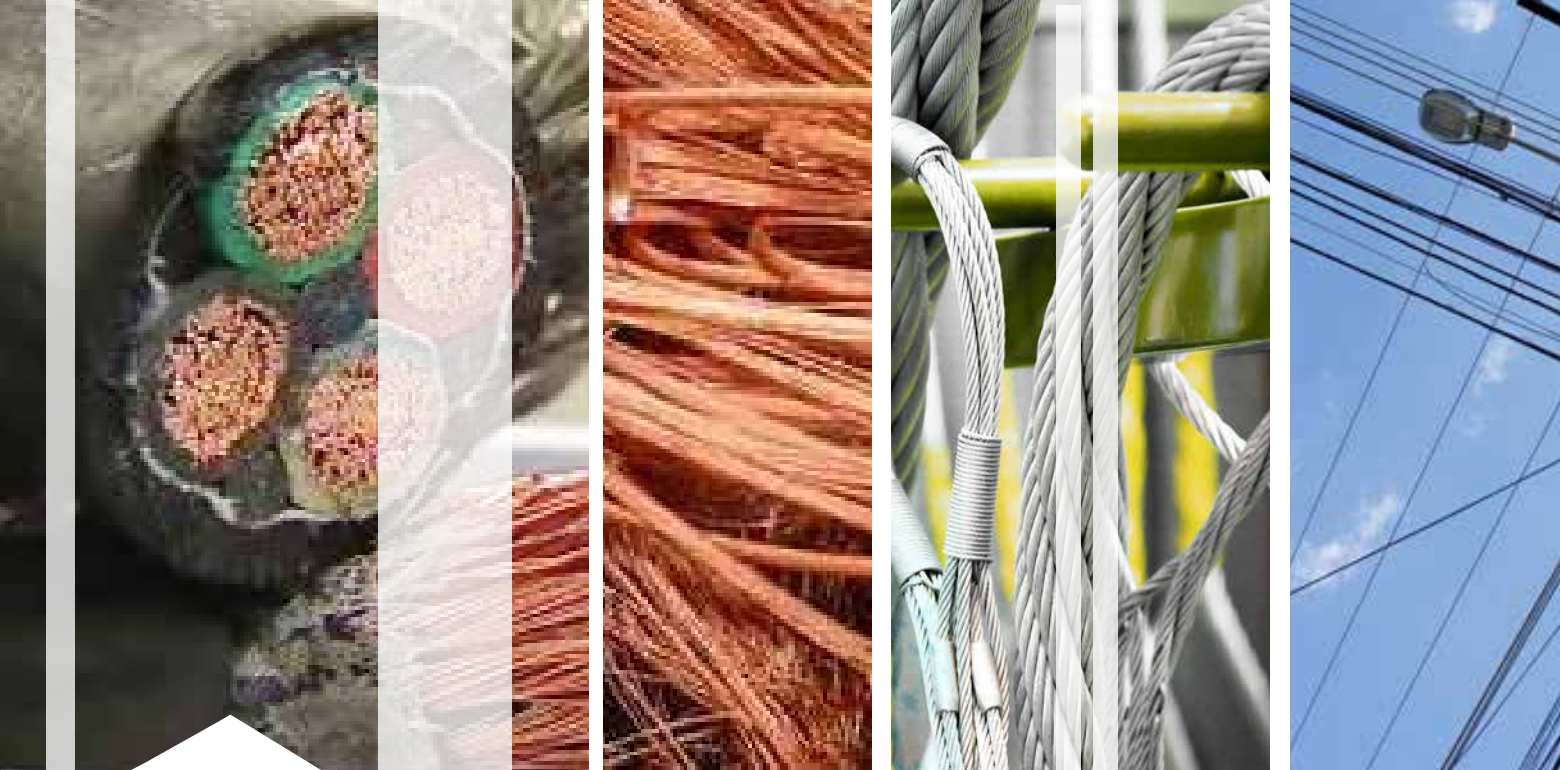
Saving time and costs

Aquatic Engineering and Construction Ltd will lay 87mm diameter power cables for the main provider of electricity in British Columbia, Canada.

The shallow water project began in September, in the tidal estuary of the Strait of Georgia. Aquatic will be laying approximately 15km of electrical power cable, operating in a busy shipping lane between Vancouver Island and mainland British Columbia, close to the US border.

Aquatic's multi-reel solution enables the project vessel to perform fewer of the 230km trips between the quayside and the project site, reducing the barge transit distance by 2,000km. The solution will provide considerable time and craneage cost savings by having all four reels loaded on the vessel at the start of the project, rather than mobilized individually.

Richard Charles, sales and business development manager, Aquatic, said: "Our recent successes, such as the umbilical installation project with Mermaid Subsea Services in the Middle East earlier this year, have demonstrated our multi-reel capability and expertise in delivering an integrated managed service."



Possible new rules for outage reports

The Federal Communications Commission has voted to propose new rules designed to tighten the outage reporting rules with new requirements for submarine cables. The goal, as stated by the FCC, is to “help safeguard this critical communications infrastructure and promote reliable communications for businesses and consumers.”

Submarine cables have become a point of vital importance for global telecommunications infrastructure. As the FCC noted in a statement, “There are approximately 60 submarine cables that provide connectivity – voice, data and Internet – between the mainland US and Alaska, Hawaii, Guam, American Samoa, the Northern Mariana Islands, Puerto Rico, and the US Virgin Islands, as

well as virtually all connectivity between the US and the rest of the world. While submarine cables are vital to America's economic and national security, licensees currently only report outages on an ad hoc basis, and the information received by the FCC is too limited to be of use.”

New requirements could provide for more accurate reporting, helping regulators to take action to prevent outages that could present a public safety hazard, or a threat to national security.

Proposed rules are open for public comment.



Pay out for fiber damage

A mistake during a routine new business water main installation cost the city of Monterey Park \$85,000 in settlement costs.

AT&T Inc filed a claim in October 2014 seeking \$99,900 in material damages and labor expenses that resulted when the city installed a new water main. According to the claim, city staff hit multiple underground cables and damaged a conduit while digging.

City manager Paul Talbot said: "It's a mistake that I wish never happened, but apparently it did. We spent a lot of time reviewing the claim and making sure that they weren't charging for things that were upgrades to the system and not just the damage."

Monterey Park finalized an \$85,000 settlement with AT&T on 9th September.

DigAlert, the underground service alert of southern California, had found fiber optic wires running through the area, Mr Talbot added. Staff decided to go underneath the wires without realizing that more AT&T wires were below.

"They were trying to not shut down more traffic than they would need to," he explained.

EUROPE NEWS

REPORTING ON THE TOP 100

Integer Research's independently compiled "Top 100 global wire and cable producer database 2015" has given the top spot to Prysmian, with Nexans close behind. Prysmian was top of the rankings in 2014 and Nexans has considerably closed the gap between the two.

The annual database acts as the barometer of competition across the wire and cable industry, providing independently verified rankings of the 100 largest producers in the world based on revenues derived from insulated products for the previous year.

Analysis of the latest data shows that the top producers generated insulated wire and cable revenues of \$110 billion during 2014, representing 51 percent of the global market.

General Cable held onto its third place in 2014, but it is likely to be overtaken by Sumitomo Electric during 2015. Southwire continues to rise up the rankings, helped by acquisitions and the stronger demand for cable from the USA.

Other movers in 2014 include Riyadh Cable, El Sewedy, Al Fanar, Bahra Cables and Elloumi Group, who have all continued to see a rise in revenues in the Middle East and North Africa and, in the case of Coficab, through new operations in Mexico and Brazil.

For the first time in seven years, the leading Chinese companies have not risen up the rankings against their global peers.



Solar growth for India

ABB will provide plant electrification, automation and substation solutions for solar power plants in India. Spread across the southern Indian states of Karnataka, Tamil Nadu and Andhra Pradesh, the projects will connect over 850MW of solar energy to the grid, and will be among the biggest solar projects worldwide.

The most significant of these projects, placed by the diversified Indian multinational Adani Group, is the 648MW solar plant in Kamuthi, Tamil Nadu. ABB will provide a turnkey solution encompassing the design, supply, installation and commissioning of the power plant electrification and automation systems, the pooling stations and multiple substations. This includes two 230kV and three 110kV substations to connect the electricity generated to the local grid.

India has approximately 300 clear, sunny days in a year, giving a theoretical on-land solar power reception of around 5,000 trillion kilowatt hours per year. Even with a PV module efficiency as low as ten percent, this represents a thousand times the domestic electricity demand projected for 2015.



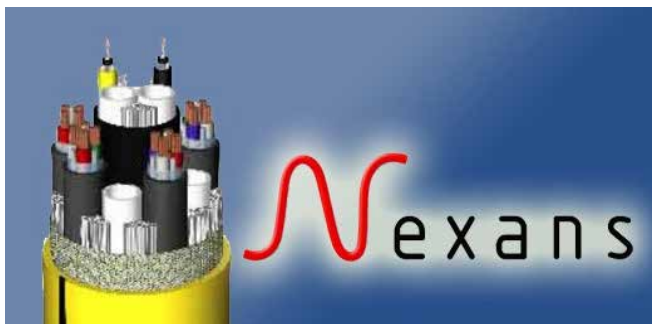
Heavy armor deal

Hexatronic Cables & Interconnect Systems has secured a contract with A-2-Sea Solutions Ltd, a privately owned British-based company that installs and maintains subsea cable for some of the biggest operators in the market.

Hexatronic will supply approximately 20km of rock armored submarine ribbon cable for the Isle of Wight to Portsmouth installation project. The three-layer armored cable is designed to withstand the demanding undersea conditions.

A-2-Sea Solutions is a global submarine installer within the fiber optic subsea and subaqueous industries, utilizing its own land, beach and marine joint technology. Hexatronic offers solutions for submarine cables and the entire passive fiber infrastructure including design, manufacturing and supply.

“The contract with A-2-Sea Solutions is important for Hexatronic as we break into a new market with our comprehensive and future-proof submarine cable solutions. This agreement strengthens Hexatronic’s global presence in the subsea telecom cables industry,” said Henrik Larsson Lyon, CEO of Hexatronic Group AB.



Cameroon cable

Nexans will supply approximately 1,100km of its repeatered optical cables (ROC-2) to Huawei Marine for the Nigeria-Cameroon submarine cable system (NCSCS). The NCSCS, with a capacity of 12.8Tbps, will deliver broadband to users in both countries by the end of 2015. Optical repeaters were integrated into the cables by Huawei Marine at Nexans' facility in Rognan, Norway.

The cable system will be the first to be wholly owned by Cameroon.

"Nexans has met the needs of our project by not only producing high quality repeatered cable, but also providing dedicated support in the complex process of integrating the repeaters into the cable. The delivery of these cables is a key milestone in the NCSCS project," said Kevin Zhang, project director at Huawei Marine.

Krister Granlie, executive vice president of hybrid underwater cables at Nexans, added: "The NCSCS project represents a key milestone for Nexans in entering the repeatered cable system market, and we look forward to continue collaborating with Huawei Marine in the future."



Cable lay contract

Fugro has secured a contract for the installation and burial of 122 array cables at the Rampion offshore wind farm, located 13km off the Sussex, UK, coast. The contract was awarded by E.ON with the UK Green Investment Bank. Engineering and planning will begin immediately with installation to be carried out in two phases in 2016 and 2017. Construction is expected to be completed in 2018.

Fugro will lay the cables using its construction and installation vessels *Fugro Symphony* and *Fugro Saltire*, and will use one of its two Q1400 trenching systems to bury the cables. The array cables will be pulled-in and laid between the wind turbines and the offshore substation from where the power is transmitted onshore.

"The award of this contract has strengthened Fugro's successful working relationship with E.ON and comes soon after finishing cable-lay and burial on E.ON's recently completed Humber Gateway wind farm," said Derek Cruickshank, MD of Fugro Subsea Services Ltd.

The Rampion offshore wind farm will consist of 116 turbines, each with a generating capacity of 3.45MW.



Environment minister Barbara Hendricks

Greenhouse goals

Germany's environment ministry has admitted that the country is likely to fall short of its future greenhouse gas emissions targets by seven percent. Environment minister Barbara Hendricks has said that Germany is on track to reduce its greenhouse gas emissions by just 33 percent in comparison to 1990 levels by the year 2020. This falls short of the country's previously stated aim of 40 percent.

According to research from the German arm of World Wide Fund for Nature (WWF) things could be even worse than expected: Germany could actually miss its 2020 emissions targets by 10.7 percent.

Germany's targets of 40 percent reduction by 2020 and 55 percent reduction by 2030 are considerably more ambitious than European targets. In comparison, Europe is aiming for a 20 percent reduction by 2020.



Fiber plant upgrade

Prysmian Group has upgraded and renewed its optical fiber production facility in Douvrin, France.

With a total plant area of 155,000m² and 348 employees, the Douvrin facility is believed to be the biggest European plant for the production of optic fiber, and one of 11 Prysmian plants in France.

The plant produces 25 million kilometers of fiber preforms per year, part of which is drawn into fiber on site and the rest is exported to be drawn elsewhere. The group has recently invested approximately €15 million in the plant, partly funded by the French government and local institutions, to increase its production capacity.



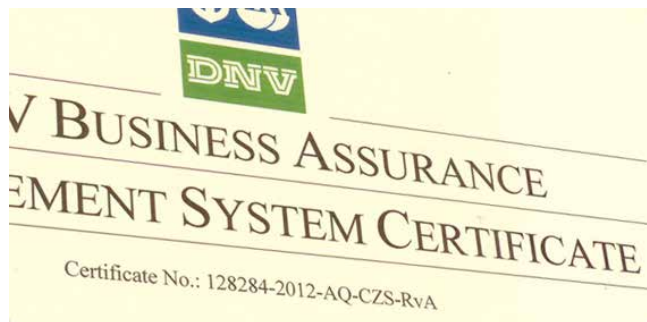
Finnish frame agreement

Eltel and Caruna have signed a frame agreement to improve the power distribution network in the south-western regions of Finland. Improvements in medium-voltage networks will be carried out over the next three years. The agreement extends until September 2018, and will continue earlier projects between the two companies.

The agreement consists of several separate projects to replace overhead power lines with underground cables.

Juha Luusua, president of power distribution, Eltel, said: "We are delighted to support Caruna's massive investment program in Finland. Caruna, as the largest distribution operator in Finland, is an important and long-time customer of Eltel. Our cabling expertise, which has been developed in Finland, is also an excellent export product to the other northern European electricity markets."

Ari Koponen, CEO of Caruna, said: "We see the investment in the electricity network, based on this frame agreement, as an important driver for complying with regulatory requirements within the given timeframe. The framework agreement is an essential part of our operations, while we maintain annual investments in our network."



Reeling in certifications

GMP Slovakia has achieved two new certifications for its spools and reels: ISO 14001:2004 for environmental management systems and BS OHSAS 18001:2007 for occupational health and safety management systems.

The company was already certified with ISO 9001:2008 for its quality systems.

CabWire World Conference 2015

DRAFT PROGRAM

NON-FERROUS

Leoni A.G.	KEYNOTE SPEAKER - Success factors for sustainable international growth
CRU Group	Recent developments in the global cable industry including the future outlook
Ideal-Werk	Wire joining of non-ferrous metals by dual force technology
De Montfort Leicester University	Comparative study of two scheduling approaches to resolve scheduling problem for a wire and cable manufacturing process
Samp SpA	Application of new technologies in the drawing of coated wire and subsequent insulation with high-temperature materials
Maschinenfabrik Niehoff GmbH	Manufacturing solutions for alternative materials to copper for automotive wires
Sikora AG	Highly pure XLPE material is essential for high-quality EHV and subsea cables
Ceeco Bartell Products	Manufacturing of compact conductors, highlighting the benefits and potential costs reductions in the whole stranding process
C Tech Corporation	Rodents - not just a nuisance but a threat to the wire and cable industry
SICME Italia Impianti	Revolutionizing the wire manufacturing process
Continuus Properzi	Properzi adds continuous rotary extrusion to its range of equipment to provide an integrated solution for the production of ACSR/AS conductors
Innovites BV	Making IT work in the wire and cable industry
SIEBE Engineering GmbH	Foam insulation in cable extrusion – technology fundamentals and some case studies

FERROUS

Data M Sheet Metal Solutions	Design and simulation of rolled profile wires with modern CAE tools
FMS Force Measuring Systems AG	Improved transmission of critical signals in bunchers, twistors and stranders through use of wireless systems
Ceeco Bartell Products	The use of steel strip, shaped wire and round wire in the production of umbilical cable and submarine cable
NV Bekaert	Heat resistant colour coatings for a new generation of spring wires
Koner Srl	Technological progress in the drawing of zinc-coated wire by a new type of tungsten carbide dies
Traxit International	New efficiency coatings and dry drawing lubricants
De Montfort Leicester University	Comparative study of two scheduling approaches to resolve scheduling problem for a wire and cable manufacturing process
FIB	New design in open fire furnaces
Kabel.Consult.Ing	Energy-efficient drive system for winding machinery
GEO-Reinigungstechnik GmbH	A holistic view of the in-line wire cleaning



CabWire World Conference 2015

Congress Center Düsseldorf, Germany
3 November 2015

7th biennial cable and wire technical conference



Ferrous plant tour



ArcelorMittal is the world's leading steel and mining company.



Guided by a philosophy to produce safe, sustainable steel, it is the leading supplier of quality steel products in all major markets including automotive, construction, household appliances and packaging. ArcelorMittal is present in 60 countries and has an industrial footprint in 19 countries.

The plant of ArcelorMittal Duisburg is located in the Ruhr region in north-west Germany. ArcelorMittal Duisburg works to develop new applications and new products for the automotive, energy and mechanical industries.

The billet mill produces high quality billets and SBQ for the forging industry. The new wire rod mill is serving the automotive market with cold heading, spring grades, bearing and other special wire rod grades.

REASONS why you need to be there:

- Packed ferrous and non-ferrous programmes by industry leaders
- High quality keynote speakers
- Table top exhibition
- Evening reception - an excellent opportunity to network
- Backed by leading industry organisations
- Tour of a major industrial plant to see the latest technology in action
- A world-class venue in the world centre of the wire industry

For more information visit our website www.cabwire.com

Evening Networking Event

Included in the conference registration fee is an invitation to the CabWire 2015 evening function which will be held at the Zum Schlüssel, a venue with a long and rich tradition, located in the heart of Düsseldorf old town.

This function will be a great opportunity to meet up with fellow delegates and conference speakers, as well as enjoying dinner and refreshments.

There will also be the opportunity for a tour of the on-site brewery and of course to enjoy the award-winning original key-ALT brew.



ASIA & AFRICA NEWS

▼ Dr Nawal Al-Hosany, head of sustainability at Masdar, and Mr Wu Hongbo, under-secretary general for economic and social affairs at UN-DESA pictured at the awards ceremony. The latest hand-held cutter from Eraser



CLEAN ENERGY AWARD

Abu Dhabi-based Masdar has received a special recognition award from the United Nations department of economic and social affairs (UN-DESA) for its leadership in advancing sustainable energy.

The award was granted as part of the "Powering the Future We Want" joint program between UN-DESA and the China energy fund committee (CEFC), promoting innovative practices in the area of energy for sustainable development. UN general secretary Ban Ki-moon and UN president Sam Kutesa keynoted the ceremony, held on 15th September in New York City.

Mr Wu Hongbo, under-secretary general for economic and social affairs, said: "We are pleased to present this award to an institution that furthers clean energy solutions that seek to address the social, economic and environmental dimensions of sustainable development, in line with our vision of sustainable energy for all."

Dr Nawal Al-Hosany, head of sustainability at Masdar, accepted the award on behalf of Masdar.

"I am honored that Masdar has been recognized for our achievements in making the goal of providing greater access to energy worldwide a reality. Masdar represents the embodiment of the UAE's commitment to advancing safe, clean and secure energy," she said.

Masdar is responsible for the generation of nearly 1GW of clean power worldwide, with a goal to increase that amount to 1.5GW by 2020. Masdar also invests in small and medium-sized applications in often challenging conditions and geographies, having delivered 14 projects in five countries and with 13 ongoing projects across nine different countries.



Dropping fasteners

Taiwanese steel companies are reporting that the demand for China Steel Corp's production remained at around 3.05 million tons, of which 60 percent was for domestic sales, and 40 percent for export.

Before China Steel Corp announced its prices for the fourth quarter of 2015 it had found that market demand for its steel products was low. As a result, the planned quarterly production was reduced to 2.8 million tons. A customer confirmed that wire rods for fasteners would be the products most likely to be affected.

According to the corporation, global automotive sales in the second half of 2015 may drop, bringing down demand for automotive fasteners from major producers such as Boltun and San Shing. Continuing competition with China for the small screw market may further lower material demand.

Considering the existing market, it is expected that China Steel Corp wire rods will drop around three percent from the last quarter, with a total produced weight of between 15,000 and 20,000 tons.



Saudi power load

Saudi Arabia's electric power load hit a record high of 62,260MW this year, a rise of 5,713MW from the 56,547MW recorded in 2014. The 10.2 percent increase itself is equal to the gross generation capacity of some countries in the region, according to the Saudi Electricity Company.

The rise in the country's power load is among the largest in the world. Saudi-based Alriyadh Newspaper reports that Makkah saw the highest increase ratio nationwide of 17 percent.

The Saudi Electricity Company's chief executive, Zeyad al-Shiha, confirmed that the company has added an additional 4,516MW to its generation capacity during 2015 with the construction of 22 new power stations, and a conversion capacity of 22,686 mega volt-amperes.

The size of the Saudi electric network stands at 600,000km, delivering power to over 12,815 cities, villages and residential areas across the kingdom, Al-Shiha added. He also said the company has launched ambitious projects to harness renewable energy, pointing to a 550MW project currently underway in the northern city of Tabouk.



China's grid boost

China is investing around \$313 billion over the next five years to improve its power grid infrastructure.

Citing a report published on the National Energy Administration (NEA) site, China Electric Power News said that the funding will double the length of high voltage transmission lines to over one million kilometers, reported Reuters.

The 2015-2020 investment plan will also strengthen sectors such as copper. About half of the estimated 8.7 million tons of copper consumption in China was used by power projects in 2014.

China is also considering an upgrade to its cross-country power transmission capacity to take surplus energy from the resource-rich far western area to the eastern coast, helping to reduce the region's dependency on coal. The country has already built ultra-high voltage power lines to connect the giant thermal power and hydroelectric stations in the west to eastern coastal regions of the country.

The government is also planning to launch spot electricity trading platforms to enable generators and users to set their own tariffs, currently set by the state.



Hornsdale underway

Siemens and Neoen Australia have signed a contract for the Hornsdale wind farm project, located in the state of South Australia.

After commissioning, the Hornsdale wind power plant is expected to produce over 400GWh per year – an amount of energy equivalent to a fifth of the territory's annual electricity consumption. At the signing ceremony, Australian Capital Territory's environment minister, Simon Corbell, emphasized: "As one of the winners of our first wind auction, Hornsdale plays a critical role in helping the ACT to achieve its 90 percent renewable target."

The Hornsdale project will support the renewable energy center of excellence at the Canberra Institute of Technology by creating opportunities for employment, training and investment in both the ACT and South Australia.

Construction on the project will begin immediately. Siemens will provide full turnkey services, including 32 wind turbines, with associated civil and electrical infrastructure. Siemens will also maintain the wind farm for Neoen on a long-term maintenance contract.



Renewable power mix plans

Sri Lanka's Ceylon Electricity Board is planning the installation of 375MW of wind power generation in Mannar as part of a drive to increase power generation from non-conventional renewable energy sources. Sri Lanka's first commercial wind power plants were established in 2010, and by the end of 2014 total capacity from wind power had increased to 124MW.

In comparison with conventional large power plants, the contribution from non-conventional sources to the national grid remains small but continues to increase. In 2014 the energy share was 9.8 percent. By January 2015 approximately 442MW of renewable power plants were connected to the National Grid, with investment led by the private sector.

By 2020 the CEB envisages 413MW of additional capacity in mini hydro, 354MW in wind power, 124MW from biomass and 81MW from solar power generation. The board's long-term generation expansion plan for 2015 to 2034 is available for public discussion.



Adding intelligence to the network

Gulf Bridge International (GBI) has selected Ciena to upgrade its submarine and terrestrial networks in the Middle East with 100G and 200G technologies.

Ciena's 6500 Packet-Optical platform, equipped with WaveLogic 3 Extreme chipset, GeoMesh submarine solutions and E-Suite integrated packet switching, will add intelligence to the GBI network, and improve ease of operations, maintenance and future capacity expansions, including an option to perform future upgrades.

Ed McCormack, vice president and general manager of submarine systems at Ciena, disclosed: "With Ciena's solutions underpinning GBI's submarine and terrestrial cables, GBI will have a fully optimized end-to-end network. This massive capacity enhancement also means that GBI is well positioned to accommodate growth and help its customers facilitate the demand for high-bandwidth applications, such as those needed for video and cloud services."



Pakistan secures its own power

Pakistan's Sindh government has decided to construct its own 132kV transmission line for evacuating power from SNPCL and SNPCL phase-1 to K-EKDA. National Electric Power Regulatory Authority (Nepra) has sought comments from stakeholders and will hold a public hearing for a transmission license to Sindh Transmission and Dispatch Company (STDC).

Sindh government, according to the petition, established STDC to carry out national grid power evacuation from power generation projects. Initially, the STDC is considering a power transmission line of approximately 75km from Sindh Nooriabad Power Company (Pvt) Ltd (SNPCL) and Sindh Noonabad Power Company (Pvt) Ltd Phase-II SNPCL, to KDA scheme 33 grid station of K-Electric at Karachi. Power generation is expected early 2016.

The bid for construction of the project included survey, design, tower staking, foundations, erection, stringing, testing and commissioning of a double circuit 132kV transmission line. After technical and financial evaluation of the bids, M/s Technoman Kinetics (Pvt) Ltd qualified as the successful bidder.



Making connections in Korea

The International Solar Energy Society's (ISES) solar world congress (SWC) is an internationally recognized event connecting industry experts and analysts with executives and key-decision makers. Founded in 1954, the biennial SWC is described as embodying "the spirit of international communication advanced by ISES. The objective of the SWC is to foster and promote communication among the research community, industry and political players."

Hosted by the Korean solar energy society, the theme of this year's event is Achieving the Renewable Energy Transformation, and will focus on trends, innovations, technological advancements, global policies, developments and market forecasts.

SWC will be held at Daegu, Korea, from 8th to 12th November 2015. The program will include a variety of presentations, workshops, keynote speakers and discussion forums in addition to social and networking activities.

WIRE SOUTH AMERICA 2015

750 exhibitors from **26** countries presented their products in 2013, attracting some **15,000** visitors, proving that demand is strong.

This trend is set to continue as we approach this year's event to be held concurrently with Tubotech at the Imigrantes Exhibition Centre in São Paulo, Brazil, **October 6th to 8th 2015.**



Exhibitors *Listing*



Details correct as at 7th July 2015

AEI Compounds Ltd	712
AGAPE Industrial Inc	714
Agena Resinas E Colas Ltda	507
AICON 3D Systems GmbH	605B
Anbao Qinhuangdao International Corp	720
Axjo America Inc	816
Aymak Makine Mühendislik Hiz Sanve Tic Ltd.Sti	1015
B S Shakti Steel Pvt Ltd	647
Bansal Wire Industries Ltd	818
Beijing Holland Trading Co Ltd	635
Beijing Tongdaxinming International Trading Co Ltd	829
Bergandi Machinery Co Inc	804
Böllinghaus Steel GmbH	606
Borealis Poliolefinas Da America Do Sul Ltda	1008
BWE Ltd	710
Changzhou Winlong Import and Export Co Ltd	723-3
Cheng I Drawing Machinery Co Ltd	714
Chhaperia International Company	825
Comsuc Technology Development Ltd	826
Condat Lubrifiants	532
Conflandey Industries SAS	724
Conoptica AS	848
Copperclad SA de CV	807
D&D Manufactureira Ltda	501
Daloo Machinery Co Ltd	1006
Domeks Makine Ltd Sti	TBC
Dongguan Gemwell Electrical Machinery Co Ltd	TBC
Dongguan Qingfeng Electrical Machinery Co Ltd	831-5
Ernst Koch GmbH & Co KG	604
Eurobend GmbH	705A
Fasten Group Imp & Exp Co Ltd	721-3
Fisk Alloy Inc	803
Flymca & Flyro	823
Forever Cable Materials Group	831-3
Fort Wayne Wire Die Inc	817
Fuhr GmbH & Co KG	706A
Gauder & Co SA	1006
GMP Slovakia sro	708
Golden Technologies Wire & Cable Equipment Co Ltd	629
Gotex SA	727
Hamex Hardmetallverktyg A/B	808
Hangzhou Linan Jinshengtai Foil Strip Co Ltd	719-1
Hefei Tongding Optical Electronic Technology Co Ltd	TBC
Heinze & Streng GmbH	821
Henan Evernew Machinery & Equipment Co Ltd	721-1



WIRE SOUTH

Henan Mi-Tel Imp & Exp Trading Co Ltd	812
Henrich Maschinenfabrik GmbH	704
Hipo Electrix Science & Technology Co Ltd	723-5
HMP Heinrich Müller Maschinenfabrik GmbH	702
IDEAL-Werk C+ E Jungeblodt GmbH + Co KG	701A
iiM AG measurement + engineering	706B
Inosym Ltd	626
Intras Ltd	725
Jiangsu Dewei Advanced Materials Co Ltd	721-2
Jiangsu Handing Machinery	721-5
Jiangsu Jiacheng Technology Co Ltd	824
Kablomar Kablo Ve Hammaddeleri San ve Tic Ltd Sti	820
Kieselstein International GmbH	701B
LongVision (Shanghai) Cable Materials Co Ltd	822
M & M Industries Co Ltd	TBC
Maillefer Extrusion Oy	631
MFL Group	620
Mixer SpA	712
Moltech AH	813
Nantong Lili Hardware Products Co Ltd	828
Nantong Siber Communication Co Ltd	721-6
NDC Technologies (Beta LaserMike Products)	805A
Nuhtel Makina San ve Tic Ltd Sti	806
Numalliance	608
Ozyasar Tel ve Galvanizleme San AS	716
Paramount Die Company	610
Pourtier sas Gauder Group	1006
Proton Products International Ltd	626
Queins Machines GmbH	703
Rainbow Plastics India Ltd	825
Rautomead Limited	810
Reichenbach Equipamentos Industria E Comercio Ltda	1001/1001A
RichardsApex Inc	815
Rosendahl Nextrom GmbH	625
Sar Medya Altan Kilinc	534
Schlater Do Brasil Sao Bernardo Do	515
Setic sas Gauder Group	1006
Shanghai Dehong New Materials Co Ltd	831-1
Shanghai Deilec Electrotechnics Co Ltd	728
Shanghai Hosn Machinery Technology Co Ltd	711
Shanghai JNL Industry Co Ltd	834
Shanghai Kechen Wire & Cable Machinery Co Ltd	723-2
Shanghai Minmetals Development Ltd	719-3
Shanxi Tianxiang Machinery Co Ltd	723-6
Shanxi Yiruidi Electrical Technology Co Ltd	831-2
Shree Jay Jagdamba Stainless Steel Ltd	802
Sikora AG	602B
Sinoleader Industries Group Co Ltd	814
Sket Verseilmaschinenbau GmbH	704
Sneham International	627
Spajic doo	522
Stappert Deutschland GmbH	605A

AMERICA

Exhibitors *Listing*



Stolberger dBa Wardwell Braiding Co	704
Stolberger KMB Maschinenfabrik GmbH	703
Sulamericana De Feiras Industria E Comercio Ltda	507
Suzhou Star Materials Co Ltd	827
Synergychem Ptd Ltd	845
Traxit International GmbH	603A
Troester GmbH & Co KG	705B
Uefa Comercial Ltda	450/448
Unigel (UK) Ltd	628
Upcast OY	538
Wagener GmbH & Co KG Stahldrahtwerk	603B
Windak Inc	816
WiTechs GmbH	604
Wuxi Changxin Technology Co Ltd	719-2
Wuxi Pingsheng Science & Technology Co Ltd	836
Wuxi Xingcheng Special Materials Co Ltd	719-5
Wuxi Xinrun Industrial Furnace Co Ltd	TBC
X-Compound GmbH	705B
Xuzhou Lint Top Cable Technology Co Ltd	841
Yangzhou Havet Machinery Co Ltd	832
Yangzhou Tengfei Electric Cable and Appliance Materials Co Ltd	831-6
Zhangjiagang SanFeng Machinery & Electric Development Co Ltd	711
Zhejiang Baichuan Conductor Technology Co Ltd	719-6
Zhejiang Harbor Mechanical and Electrical Equipment Group	840
Zhejiang Tenglong Stainless Steel Products Co Ltd	722

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IWCS 2015

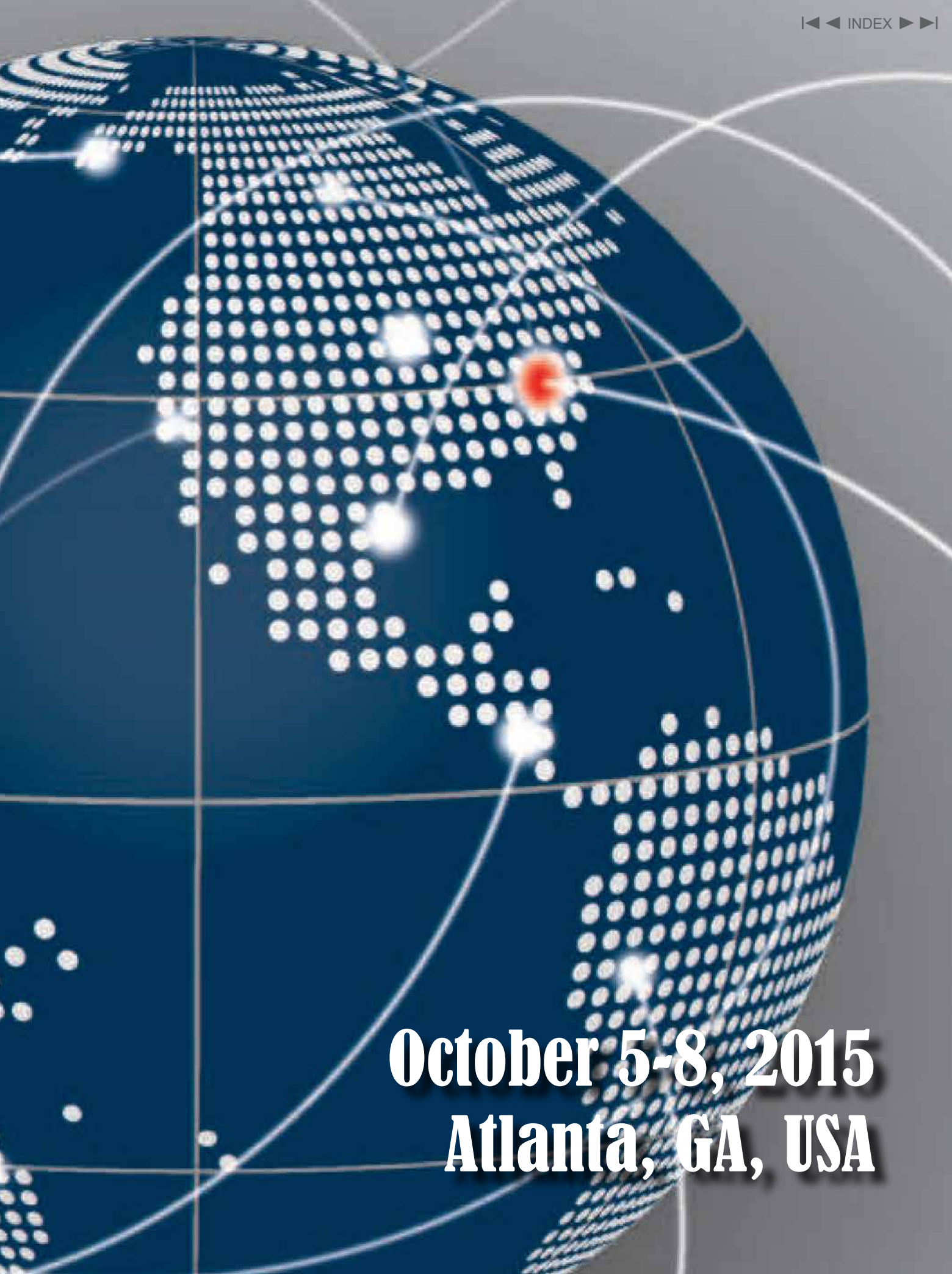
The IWCS Symposium Committee has generated an extremely high caliber program for the 2015 IWCS Conference in Atlanta, Georgia. It contains over 130 papers and presentations in 18 compelling sessions over three full days.

In addition, a variety of strong Professional Development Courses will be offered on Monday, providing a great learning opportunity from renowned industry experts. The Executive Track will feature speakers and topics of interest to general and commercial management, with a focus on supply chain issues. The Suppliers' Exhibition™ will reveal the latest products and services from the important suppliers to our industry, including special sessions featuring the introduction of new products.

During the annual Plenary luncheon, the Keynote Speaker will feature an intriguing perspective on solutions to meet the future demands of "the Internet of things". The event will also be honoring technology achievements of the recent past and university students who have received various industry scholarships with the ambition to join the wire industry in the near future.

"We recognize that networking is a critical element of any industry gathering, and we plan for plenty of opportunities at the IWCS 2015 event," says a representative of the IWCS.

On Tuesday, IWCS will host a hospitality hour in the exhibit hall with suppliers and Customers. After the exhibits close, the Wire & Cable Industry Suppliers Association® (WCISA) will host a reception to honor the industry's young professionals, new visitors to IWCS and students who are showing interest to join the industry upon graduation.



October 5-8, 2015
Atlanta, GA, USA



Exhibitors LISTING

Details correct as at 27th August 2015

AGC Chemicals Americas Inc	313
AlphaGary Corp	201
American & Efird, LLC	212
Arkema Inc	700
Artofil	209
Arya Chem Inc	802
ASI/Silica Machinery LLC	300
Borealis Compounds Inc	512
Breen Color Concentrates Inc	608
Cable Components Group LLC	507
Carris Reels	406
CERSA-MCI	301
CHASE / NEPTCO	100
Chengdu Centran Industrial Co Ltd	303
Chromatics Inc	112
Clinton Instrument Company	312
Coats North America	515
Commission Brokers Inc	500
Conneaut Industries Inc	501
De Montfort University	715
DeWal Industires Inc	202
Dow Chemical Company	701
DSM Functional Materials	101
Excelitas Technologies (OmniCure®)	708
EuroWire	714
Fiber-Line LLC	302
Gauder Group Inc (Pourtier & Setic of America)	713
Gem Gravure Company Inc	803
Hengtong Optic-Electric Co Ltd	114
Heraeus Noblelight America LLC	108
Hubei EverFLON Polymer Co Ltd	806
Huestis Industrial	801
Huntsman International LLC	600
Inhol BV	206
International Wire & Cable Symposium (IWCS) Inc	615
Intras Ltd	714
Isotek Corporation – an Isabellenhütte Co	607
J M Huber Engineered Materials	400
Joe Snee Associates Inc	107
Kuraray America Inc	702

October 5-8, 2015

Atlanta, GA, USA

Lloyd & Bouvier Inc	502
Lubrizol Corporation	612
Maillefer Extrusion Oy	709
Medek & Schoerner GmbH	807
MGS Manufacturing Inc	402
Miltec UV	602
Nabaltec AG	706
NDC Technologies Inc	109
OFS	106
OptEM Engineering Inc	207
Optimum Cable Systems Corp	800
Photon Kinetics Inc	213
PrintSafe	215
PWM	109
Roblon A/S	808
Rosendahl Nextrom Technologies	606
S&E Specialty Polymers	609
Saint-Gobain	413
Shanghai Kechen Wire & Cable Machinery Co Ltd	113
Shenzhen Delifeng Trading Company Ltd	412
Sikora International Corp	208
T & T Marketing Inc	401
Technical Marketing Services	200
Teknor Apex Company	407
Unigel Inc	601
Unitape USA LLC	603
Wardwell Braiding Co	513
Web Industries Inc	306
Weber & Scher Mfg Co Inc	707
Windak Inc	314
Wire & Cable ASIA	714
Wire & Cable Technology Intl/WCISA	115
Wire & Plastic Machinery Corp	307
Wire Association Intl/Wire Journal	315
Wire Word Internet	514
wiredInUSA	714
Wonderful Hi-Tech Co Ltd	214
Yangtze Optical Fibre and Cable Joint Stock Ltd Co	712
Zumbach Electronics Corp	613

Exhibitors' PRODUCTS

BOREALIS AND BOROUGE **Booth 512**



▲ *Energy all around from Borealis and Borouge*

For nearly 50 years, Borealis has supplied advanced energy and infrastructure plastics solutions for the wire and cable and capacitor film industries. Together with Borouge, its joint venture with the Abu Dhabi National Oil Company (ADNOC), Borealis provides services and products to customers around the world.

The companies will be showcasing their Borstar® jacketing and communication insulation portfolio. Borstar technology supports several polyethylene (PE) compound applications in communication cable jacketing, as well as very low shrinkage high-density polyethylene compounds (HDPE) designed for fiber optic cables.

During Session 18 on 8th October, Dr Bernt-Åke Sultan, Borealis Group expert - HPPE research, innovation and technology, will present a paper entitled "A new technology platform for moisture curable non-halogen flame retardant polyolefin."

CIMTEQ LTD **Booth 814**

Cimteq has been delivering cable design and quotation solutions to leading cable manufacturers around the world for over 15 years. It will be presenting the new release of the flagship product CableBuilder, including the exciting new CableBuilder 3D Module for generating 3D cable models. Cimteq will also present its new product, CableMES, an out-of-the box manufacturing execution system specific to cable manufacturing.



▲ *CableMES in action*

CableBuilder helps cable manufacturers to design wire and cable faster, quote faster and avoid costly mistakes that lead to waste. Application features include: easy to use/implement; fast design and quotation for all cable types; powerful mass-update tools; automatic generation of 2D and 3D drawings; version/revision control; integration to ERP systems; data import/export; length-based costing; packaging calculations; and professional datasheets.

CableMES is a new product which improves communication with the shop-floor in order to maximise throughput, improve schedule adherence, improve process efficiency, reduce waste, and reduce the overall cost of quality. Application features include: convey production orders and product specifications to the shop-floor; relay progress to ERP and scheduling systems, in real-time; non-conformance handling; quality alarms recorded against length; tracking and analysis of process parameters; analysis of OEE and other KPIs; quality analysis, with full raw material and WIP traceability; and warehouse management.

CLINTON INSTRUMENT COMPANY
Booth 312



▲ The new HF-15B series from Clinton

Clinton Instrument Company has launched the Model HF-15B series of high frequency AC spark testers. This series replaces the HF-15A, which was first shown at Interwire in 2001. Since then over 10,000 HF-15A units have been shipped worldwide.

In addition to the reliability of Clinton Instrument spark testers, the HF-15B offers customers the ability to utilise many new technologies. New features provide more information, easier integration, and flexible solutions in response to difficult applications.

The HF-15B series features a large adjustable alphanumeric display with multiple view options. Customers can monitor total fault count, specific types of fault conditions, and per cent load. The front panel also offers optional password security.

PLC integration is effortless when connecting with Modbus RTU via RS-485 full duplex. Optional Ethernet/IP, Profinet, Profibus, Modbus TCP, and analog communications are offered as an integrated component with the new series.

New features of the HF-15B series also include:

- Split electrode design for easy string up
- Differentiation between four types of fault conditions including single or multiple pinholes, direct metal to metal contact and gross bare wire
- DSP-based voltage regulation and fault detection
- Voltage watchdog circuit – to ensure the spark tester is always making the preset voltage
- Four relay outputs with selectable functions — including high voltage ON indicator, fault

alarm, voltage watchdog, and gross bare wire alarm, with others available

- Removable display can be mounted up to 60m away

In addition to these abilities, the HF-15B Series features fully automatic calibration of voltage and sensitivity to EN50356, IEC/CEI 62230 and NEMA standards when using the Clinton Instrument STCAL system.

GEM GRAVURE
Booth 803



▲ *The alphaJet from Gem Gravure*

The process of identifying freshly extruded wire can be challenging. The technique you choose needs to keep up with a continuous process even in the toughest manufacturing

environments. Since 1952, Gem Gravure has been formulating inks for the wire and cable industry which adhere to even the most resistant of wire surfaces. The company first sought out gravure wheel printing, and raised the bar again by introducing ink jet printing to wire and cable world.

Gem will be presenting the latest in ink jet ink technology, and will also give a presentation on the new products stage.

As of July 2014 the company received confirmation that its patent US20130260037 was approved and published. Before this patent, marking on fluoropolymers was done using a contact wheel. This is the first ink jet ink of its kind for marking fluoropolymers using ink jet printers. This ink will be on display at IWCS in two colors, including the BKG7761-LE black ink and the GNG7765-LE green ink. Ask about the blue pigmented BLG1866-LE which provides the brightest contrast on most wire surfaces.

The Gem booth will also feature the alphaJET into. This printer is a good solution for wire and cable due to its ability to produce high quality prints at fast speeds. Customers benefit from its low cost of operation, user friendliness and variable printing. Additional software worth mentioning is the diamondJET connect which allows remote printing and monitoring of alphaJET ink jet printers.

GOTEX
Booth TBC

Gotex SA is a worldwide operating company formed in 1947 which produces coated yarns

and woven tapes among a wide range of products for the cable manufacturing industry.



▲ The Gotex head office

The company is well known in the oil and gas industry with special tapes and also supplies textile techs, especially developed for several clients from diverse industries around the world.

HUBER ENGINEERED MATERIALS

Booth 400

Huber Engineered Materials offers high performing halogen-free fire-retardant additives for wire and cable compounders and producers. Huber's expertise lies in designing and producing alumina trihydrate (ATH) and magnesium hydroxide (MDH) flame retardants and smoke suppressants and molybdate compounds to meet the most demanding end-use requirements.

Huber will be exhibiting its fire retardant additive product brands, including

high-purity and low-conductivity Hydral[®] precipitated ATH; Hymod[®] surface treated ATH; Micral[®] ATH; Vertex[®] MDH; Zerogen[®] MDH; and Kemgard engineered molybdate compounds, used for plenum cable jacketing to meet the smoke requirement of UL 910.

Huber's Vertex[®] 100 SP and 100 SV surface-treated magnesium hydroxide products are designed for wire and cable jacketing applications where a higher processing temperature is necessary. These two products enable high loadings in jacketing compounds while maintaining an excellent balance of elongation and tensile strength.

Huber will be introducing Zerogen[®] 100 SP, a new magnesium hydroxide product developed for improved mechanical property balance and enhanced electrical and color performance benefits where high temperature wet electrical properties are needed.

MAILLEFER EXTRUSION OY

Booth 709

Maillefer will be showcasing three different solution levels for fiber optic manufacturing:

OEL 40/Enter: The entry-level choice designed to be in range of start-up



investment plans. Line speed reaches up to 300m/min for jelly-filled tubes. OEL 40/Enter is a robust, low maintenance line, designed to provide immediate maximum productivity.

OEL 40//Extend: A high-speed, flexible secondary coating line, the OEL 40//Extend is a lean and proven solution. Line speed reaches up to 500m/min working with both jelly-filled and dry tubes. The high quality of loose tube is ensured by excess fiber length (EFL) and shrinkage control with the compression caterpillar CCA 1000.

OEL 40///Explore: For ultra-high speed production using a variety of materials. The line and its components are fine tuned for high speeds, including precise alignment and balancing of all rotating and moving parts. With an output of up to 1,000m/min, the line provides jelly-filled and dry loose tubes within tight quality tolerances. EFL and shrinkage control with the CCA 1000 compression caterpillar are also included.

MGS GROUP
Booth 402



▲ Compact fine wire/fiber payoff with dancer

The MGS Group, consisting of MGS Manufacturing, Hall Industries and Northampton Machinery Co, is an international supplier of customized automation and technology solutions for product handling and twisting systems. The companies offer comprehensive design and engineering capabilities, a personalized service, and a wide range of machinery for the production of most types of wire, cable and optic fiber products.

MILTEC UV
Booth 602

Miltec UV manufactures high-performance UV curing systems used in high-tech market applications including optical fiber, semi-conductor, electronics and automotive products. For over 25 years, it has provided superior quality systems and service in both domestic and global markets.

Miltec designs and manufactures alternative UV technologies, including microwave and medium-pressure arc powered UV systems, as well as parts and components for nearly all UV manufacturers. Its systems enable customers to achieve more efficient curing with large reductions in operating costs. These high-powered UV systems outperform the competition where it matters most. Fast cure speeds are possible given the systems' ability to deliver the highest peak irradiance of UV energy at the focal point.

The advanced optics with more UV output concentrated at the fiber result in faster line speeds. Miltec provides significant energy and operating savings through efficient design and easy maintenance features. This results in attractive return on investment for

new lines or replacing existing UV systems with Miltec UV's advanced UV technology for optical fiber draw, coloring, and FRP coating solutions.



▲ The Xtrema Plus range from Miltec

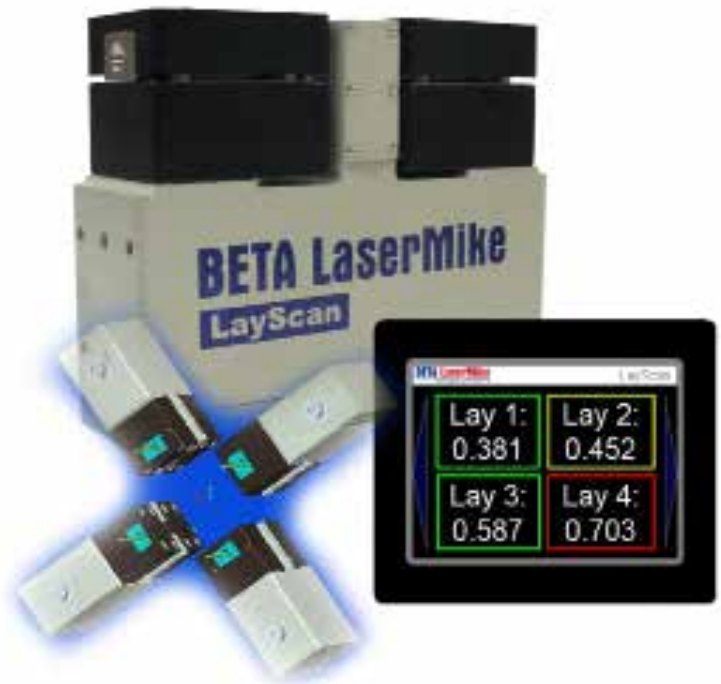
Product benefits include: Highly qualified team of experienced optical fiber UV specialists; new advanced system designs to reduce energy and operating costs; patented features with significant performance advantages; R & D lab to provide new processes or improve existing ones; robust, durable UV equipment that provides consistent UV output; easy maintenance and exceptional ongoing technical service; advanced touchscreen controls for easy operator interface; and lower parts costs.

NDC TECHNOLOGIES
Booth 109

NDC Technologies will be presenting a broad range of Beta LaserMike in-process and off-line dimensional monitoring systems for wire and cable. NDC will present the new AccuScan 6012 four-axis diameter and ovality gauge, latest LayScan lay length measurement system and the most recent DCM ES-2G four-pair LAN/data cable testing system.

The new 4-axis AccuScan 6012 gauge is designed to provide comprehensive measurement coverage around the product's circumference to instantly detect changes in product diameter. It performs ultra-fast diameter and ovality measurements at 9,600 scans per second on products up to 12mm. AccuScan 6012 is also said to improve ovality accuracy up to 100 percent.

The latest version of LayScan measures the lay length of twisted pairs in data communication cables, such as Cat 5e/6/6a/7a products. LayScan can be used to measure the four pairs at the cabler or to measure an individual pair at a twinner to confirm the accuracy of twisted-pair cable construction during production. A data acquisition and control system effectively collects and processes each lay length and enables off-line analysis tools such as trend charts, statistical analysis or FFT analysis.



▲ The LayScan from NDC

The most recent DCM ES-2G testing platform extends the high-frequency measurement range to test Cat 5e/6/6a/7/7a cables up to 2.2GHz. This bench-top system is optimized to test next-generation 40Gb/s Cat 8 cables. The heart of the system is a Windows®-based software engine.

PWM
Booth 109

PWM's manual cold welders will be presented by Joe Snee Associates, the exclusive distributor for PWM in the US and Canada.



▲ *The M101 cold welder from PWM*

Designed for joining wire in confined spaces, PWM's hand-held M10, M25 and M30 machines are comfortable to hold and simple to operate, using finger or hand pressure. Welding capacities range from 0.1mm to 1.8mm.

The larger BM30 model, which can be used on a workbench or supplied with an optional cart, provides a strong, reliable weld on non-ferrous wire of 0.3mm to 1.8mm diameter.

PWM's M101 cold welder, for joining copper wire 1mm to 3.6mm and aluminum 1mm to 5mm, can also be used to weld profiles and strips for armoring lines. PWM also produces powered cold welders for bonding copper wire and rod up to 25mm and aluminum to 30mm.

ROSENDAHL NEXTROM USA INC
Booth 606

Rosendahl Nextrom has focused strongly on extrusion materials and advanced manufacturing technology. Cable manufacturing which requires the processing of high temperature materials (PEEK, PI and fluoropolymers such as FEP, PFA and X-ETFE) has been further developed and the results will be presented at this year's show.

Also at the show will be optical fiber manufacturing solutions and a new high performance secondary coating line geared up to 1,000m/min, as well as a range of extrusion and crosshead technology.

Rosendahl Nextrom is a global supplier of production technologies for cable, wire and optical fiber.

SIKORA
Booth 208

Sikora will be presenting a wide range of measuring, control, inspection and sorting technology for wire and cable production.

Products on the stand will include the Purity Scanner system for online inspection and sorting of plastic pellets for cable insulation. Contaminated pellets are detected and

rejected, ensuring that only pure pellets are used in the extrusion process. The smallest detectable particle size is 50µm at a flow rate of up to 2,000kg/h.



▲ Fiber Laser 6003 Airline

Sikora's Fiber Series 6000 offers continuous online quality control of optical fibers in the drawing tower. The Fiber Laser 6003 measures the diameter of uncoated and coated fibers. Depending on its point of installation, it provides information on the position, vibration frequency, tension and spinning. The measuring principle ensures an accuracy of $\pm 0.05\mu\text{m}$.

Fiber Laser 6003 Airline detects airlines and, in addition, the gauge heads provide information on concentricity and temperature of the optical fiber. Fiber Lump 6003 Micro detects lumps and neckdowns on the optical fiber surface; using six measuring axes, shadow areas are eliminated and faults from 5µm height and 50µm length are detectable.

Laser Series 2000, Centerview 8000e, and Lump 2000 will also be among the technology at the show.

T & T MARKETING

Booth 401

T & T represents thirteen suppliers to the wire and cable industries, and offers a range of products including PVC, polyethylene, TPU, TPE, Santoprene™, fluoropolymers, EVA, CPE, flooding and filling water-blocking compounds, EPDM, tapes, copper conductors, LSZH compounds, and nylon.

T & T also provides technical services. The company's polymer testing facility is designed to support customer processing needs and provide analysis of wire samples and screenpacks. T & T technicians also perform research and development work to meet specific customer needs.

In addition to having a presence on the exhibit floor, T & T will be taking part in a technical presentation. At this year's conference, T & T's technical director, Paul Lorigan, will be presenting a paper entitled "Quantification of the flexibility of flame retardant insulation and jacket materials when designing wire and cable products." When selecting wire and cable insulation and jacket materials for flexible constructions, design engineers typically seek softer materials. The softness or hardness is most often quantified by durometer testing in the Shore A scale. Although there is good correlation between hardness and flexibility with unfilled non-flame retardant materials, there is less correlation when flame retardant fillers are added to flexible polymers.

Certain jacket materials can be indistinguishable in hardness, but drastically different in actual flexibility. Lorigan's paper reviews the ASTM procedure for hardness testing and proposes the use of various

flexural moduli as a better method to quantify flexibility.

TENSOR MACHINERY LTD

Booth TBC

Tensor Machinery has designed and built process equipment for the wire and cable industry for the past 30 years.

The company provides a wide range of equipment for the manufacture of fiber optic and copper cables, from individual components to complete turnkey manufacturing lines.

Tensor's range includes UV coloring lines, ribbon fiber manufacturing, SZ and planetary stranding, payoffs and take-ups, tape armoring, yarn serving and complete jacketing lines.

Tensor equipment uses the latest in mechanical, electrical and electronic technology, and is engineered to withstand the daily demand placed on it by production.

▲ *The Premise Cable Jacketing line from Tensor*



WINDAK

Booth 314

Windak packaging equipment includes automatic coilers and spoolers, payoffs and take-ups, rewind lines, palletizing and pallet handling systems.

At IWCS 2015 Windak will introduce its Auto Reeler AR24.

The Auto Reeler AR24 is a fully automatic reeler for automatic packaging of cable and wire products on spools or reels between 298mm and 609mm diameter. It can be run both in-line (in direct connection with an extruder) and off-line, and automatically loads and unloads the empty reels. The machine output is two reels per minute. The unit requires minimal floor space, and when combined with the integrated palletizer makes a complete automatic spooling line with a short investment payback.

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**PRODUCTS &
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Cold formed fasteners



▲ A new threaded fastener designed to improve strength and economy

US aerospace supplier Sussex Wire has introduced a threaded fastener designed to improve strength and economy in critical applications.

The CRES fastener has a threaded shank with an overall length of only 0.676", and a low-profile 0.25" diameter oval head. A reverse hex extrusion on the end of the shank opposite the head is created by cold forming and thread rolling. The economy of cold forming, coupled with the ability to create the hex socket without collapsing the reverse extrusion, was achieved through specialist tool design by the company's in-house team.

The component is said to incorporate all of the benefits of cold forming, including high part throughput rates, significant cost economy, and 100 percent net shape, resulting in zero scrap or material waste. In addition, the finished part is clean and burr-free after forming, eliminating expensive secondary operations.

Sussex Wire says, however, that because of work hardening via cold forming and

thread rolling, material hardness increases to 130,000 KSI from the original material tensile of 85,000 KSI, substantially improving integrity and durability, an important factor in mission critical applications such as aircraft and aerospace assemblies.

Sussex Wire utilises cold forming and roll forming at room temperature to shape metal wire and alloys into highly engineered, precision, micro-miniature components.

Wise cable choice

Superior Essex has launched its PowerWise™ category 5e cable, a 22-gauge communications data cable specifically designed for Internet connected devices that utilize power-over-Ethernet (PoE) and require higher levels of current.

The PowerWise cat 5e cable provides 88 percent power efficiency for POE+ and future 4PPoE applications over 100m distances. This improved power efficiency is due to 22 gauge copper wires being 59 percent larger than the 24-gauge copper wires typically used in category 5e cables.

While some PoE devices require a cat 6A cable to support 10GB Ethernet, many devices will never need a data rate that exceeds the throughput capability of cat 5e. For devices such as LED lighting fixtures, the ongoing cost and the initial cost of the installation are the most important considerations for POE cable selection. PowerWise CAT 5e cable combines the power efficiency benefits of 22-gauge copper conductors with the design cost benefit of CAT 5e.

PowerWise CAT 5e has been designed to support the upcoming 4PPoE standard (IEEE 802.3bt), which will permit up to 100W of power to be transmitted over the same copper pairs used for data transmission. The cable has an outer diameter of only 0.23" and is available for both riser and plenum applications.

The plenum version of PowerWise CAT 5e uses 100 percent fluoropolymer insulation, demonstrated to retain all of its original physical and electrical properties even after long durations in PoE applications.

New puller is two-faced

Sjogren's new wire puller is designed for improved safety and productivity. It is compatible with a wide range of assemblies, and will pull wire in diameters from 1.5mm to 6.3mm.

Holding the puller handle with one hand, the operator simply retracts the upper jaw to a locked position and inserts the wire with the other hand.

The pivoting puller head allows for both in-line pull from the die box, and a tangential pull on the capstan to reduce the risk of wire breakage.

The jaws have dual-surface design. Each jaw provides one working life as an upper jaw and a second working life as the lower jaw, so reducing operation costs.

Smaller patch cords

Panduit Corp has added UTP and shielded category 6A performance patch cords to its 28-AWG range. With a diameter of only 0.185 for both UTP and shielded versions, the new category 6A patch cords occupy just 45 percent of the space of standard category 6A 24-AWG patch cords, bringing the advantages of higher cabling density and increased pathway capacity to users of 10GBASE-T networks.

Due to their significantly smaller size, more than twice as many 28-AWG patch cords can fit within existing pathways as compared to typical 24-AWG cords, providing an immediate solution for congested pathways simply by using the smaller size cords.

In addition, the new cords allow up to 27 percent more open space between cords, which provides increased visibility of port numbers and more room for accessing plugs and routing cords.

"The demand for small diameter cabling solutions continues to grow, showing that IT managers around the globe value the space-savings benefits these offerings bring," said Dennis Renaud, vice president of Panduit enterprise business.

"As more types of enterprise systems are networked, it is driving the need to fit more equipment into over-burdened telecommunication rooms and data centers. Panduit 28-AWG patch cords are a key piece of the solution that helps maximize this valuable real estate."

Fluid rebrand

Novinium acquired the Cablecure brand name with its acquisition of UtilX. "The brand is well known throughout the industry and the logical choice for our injection fluids," said Wade Pfeiffer, senior vice president of sales and marketing for Novinium.

Fluids now available include Cablecure iXL, an injection fluid that provides two life-extending components to repair water-tree damage and disrupt the inception of partial discharges, while simultaneously upgrading the existing cable with materials to extend its useful life for up to 20 years.

Cablecure 732 and 733 cable-rejuvenation fluids deliver multi-tiered life-extension materials that repair water-tree damage and add materials to upgrade the cable with elements found in today's new cable. Cablecure 732 is used on cables up to 250 MCM, with Cablecure 733 for use in larger-diameter cables or where conductor temperatures can exceed 60°C. OSHA and DOT approved, Cablecure 732 and 733 contain no known carcinogens or reproductive toxins and offer a 40-year warranty.

"The strength of the Cablecure brand continues to open new market opportunities as our company grows," Mr Pfeiffer added.

Cable jumpers

Molex has expanded its line of Premo-Flex cable jumpers with the addition of round flat cable (RFC) and hot bar soldering cable

versions. The new custom cable jumpers are durable, flexible and available in a variety of pitches, cable lengths, thicknesses and formats for use in multiple applications including automotive electronics, consumer devices, home appliances, and the medical sector.

David Falla, associate product manager at Molex, said: "These new options provide designers with even greater design flexibility while enabling them to maximize PCB space, shorten lead times and reduce component costs."

Utilizing a simple solder wave assembly process, Premo-Flex RFC jumpers eliminate the need for connectors or wire stripping. Available with polyester, aramid or polyimide insulation, the jumpers meet REACH requirements and withstand high temperature ratings. The Premo-Flex hot bar jumpers are permanently affixed to PCBs by soldering, creating a durable board-to-board connection that also withstands high vibration.

The flat cable design can be folded and bent for applications with space restrictions. Both options include hybrid terminations that feature zero insertion force (ZIF) or low insertion force (LIF) to through-hole soldering with round-to-flat or round-throughout format options for interchange to different PCBs.

Wire cutting with air

Eraser Company's latest hand-held air-operated cutter is the model MR30A. This ergonomically designed tool uses 85 PSI

air pressure and creates 617lb of cutting force.

The MR30A is capable of cutting 0.13" diameter copper, 0.11" diameter steel and 0.047" diameter piano wire with diagonal, clipper or end type cuts, depending on die.



▲ The latest hand-held cutter from Eraser

Diagonal carbide blades are also available. The tool is seven inches long and weighs just 1.2lb.

An optional combination air filter, regulator and lubricator is available for use with the MR30A.

Mission critical cable?

Cicoil's durable flat cable assemblies are designed for use in targeting pods, thermographic cameras and infrared sight systems where performance is critical. The compact Flexx-Sil™ encased flat cable solutions are engineered to provide consistent electrical characteristics, space and weight savings, and EMI/RFI suppression with optimum cable flexibility.

Cicoil encapsulates individual components in a shock-absorbing jacket that renders them unaffected by repeated exposure to severe vibration, humidity, extreme temperatures, turbulent flight and other environmental challenges. The combination of features makes Cicoil flat cable assemblies an alternative to formed flat cables, wire harnesses and bulky round cables in targeting and vision system applications.

Each Cicoil flat cable can incorporate a variety of components including power conductors, shielded control wires, multi-layer shielding options and Cicoil's patented StripMount™ fastening strip, all combined in a single condensed cable design. Cables are available in continuous lengths, break-outs, custom shapes for very tight spaces, cut to order or as assemblies.

The self-healing Flexx-Sil™ encapsulation needs no external protection, is tear resistant and is said to withstand over ten million cycles, even under tight bending radius and high speed flexing conditions.

Securely fastened

RE VX® has been designed to overcome the security and performance faults found in tamperproof screws.

"After ten years of developing new cold heading methods to improve security, now we're making our security screws perform better. Security screws are expensive to manufacture. By making them easier to use, the owner may recoup costs in installation," explained Bryce Campbell, president and CEO of Bryce Fastener Inc.



The higher performance of REVX is achieved by the perpendicular driving face and tapered socket features of the screw and bit. Torque is optimized, eliminating cam-out, and a tight stick fit control is gained. When compared to six-lobe fasteners, REVX tolerances are said to be ten times tighter. The resulting "one handed control" makes assembly time faster.

Configuration of the head shape is engineered to reject conventional security bit tips and common tools. Only a REVX security bit, manufactured by Bryce Fastener, can install and remove the screw. Fasteners are available in sizes ranging from #2(M2 metric) to 5/8-11 (M16 metric), in stainless steel and alloy.

▲ Better performance security screws from Bryce Fastener



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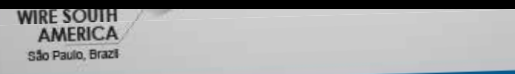
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