

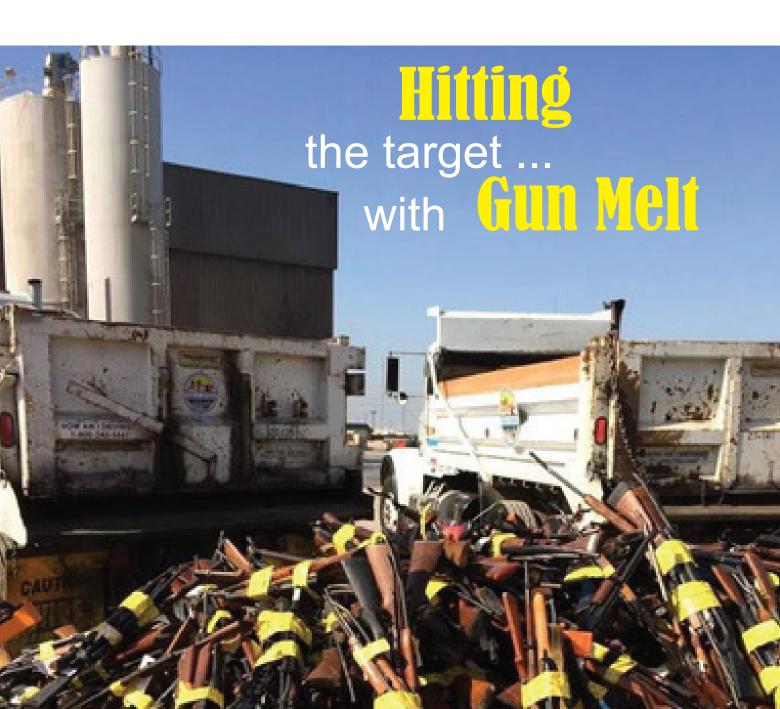
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## #39 EDITOR

Guns have provided an unusual story in this issue of wiredInUSA. More than 4,600 weapons from 12 law enforcement agencies in the Los Angeles county sheriff's department have been melted down as part of the 21st annual Gun Melt event, held throughout August, with the metal being used for the country's infrastructure projects.

The event is staged at the Gerdau Steel Mill in Rancho Cucamonga after gun owners anonymously hand over weapons in return for gift cards under the Gifts for Guns program. Since the event was first staged, the department has melted down 178,167 weapons! Full details of this year's event can be found on page 9.

Wire and art have gone hand in hand through the years, and now Chinese artist Zhou Jie is taking it to the extreme by spending 36 days in an art gallery, and sleeping on an iron wire bed. Visitors to Beijing's Art Now Gallery will be able to see Zhou sleeping, eating, washing, using her mobile phone and weaving plush toy' shapes from iron wire during the exhibition, which runs until 13<sup>th</sup> September. Catch a glimpse on page 37.

David Bell Editor



















**06 SHOW DIARY**2014, 2015 and 2016

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ASIA & AFRICA NEWS
The latest news from Asia & Africa

PRODUCTS, MACHINES AND TECHNOLOGY

The latest news from machine industries

### DIARY SHOW EVENTS

2014

#### **SEPTEMBER**

24-27 September: wire China 2014
Shanghai, China
Exhibition
www.wirechina.net

#### **OCTOBER**

28-30 October: wire India Mumbai, India Exhibition www.wire-india.com

#### **NOVEMBER**

9-12 November: **IWCS**Rhode Island, USA
Conference and table top exhibition
www.iwcs.org

2015

#### MARCH

23-27 March: NPE2015 Orlando, Florida, USA Exhibition www.npe.org

#### **APRIL**

28-30 April: Interwire 2015
Atlanta, Georgia, USA
Exhibition
www.wirenet.org

#### MAY

12-15 May: wire Russia Moscow, Russia Exhibition www.wire-russia.com

#### SEPTEMBER

15-17 September: wire Southeast Asia Bangkok, Thailand Exhibition www.wire-southeastasia.com

#### **OCTOBER**

6-8 October: wire South America
São Paulo, Brazil
Exhibition
www.wire-south-america.com

2016

#### APRIL

4-8 April: wire Düsseldorf
Düsseldorf, Germany
Exhibition
www.wire.de

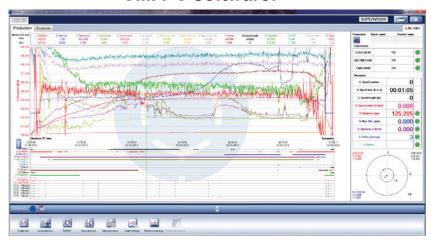


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± 1 gr within 10-40°C ambient



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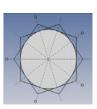
- Absolute diameter: ±0.2µm, 400Hz
- XY Positions ±0.1mm 1kHz
- 5 axes Lump & Neck: ±2µm, 3.6MHz sampling
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# MAKING THE NEWS

#### Rifles for rebar

Gerdau Steel Mill, in Rancho Cucamonga, has formed rebar from tens of thousands of handguns, rifles and other weaponry collected by the Los Angeles county sheriff's department. The products will be used in county infrastructure projects.

The 21st annual Gun Melt event, held in August, resulted in over 4,600 confiscated weapons obtained by 12 law enforcement agencies through the department's Gifts for Guns program. Under the program, gun owners are invited to hand in weapons anonymously in exchange for a gift card: \$200 for an assault weapon; \$100 for a handgun, rifle, or shotgun; and \$50 for a non-operational firearm.

The smelter and necessary personnel at Gerdau Steel Mill are donated to the annual

cause, and the county's department of public works trucks the weapons to the mill.

Since the program began, the department has melted down 178,167 weapons. The metal is reused as rebar for area highways and bridges in Arizona, California and Nevada. Gerdau's vice president, Mark Olson, calls the annual event: "an opportunity to make a positive impact on our community."

"Gerdau is melting materials that could otherwise damage our community and transforming them into steel that will be repurposed to create the buildings, roads and bridges we use daily."

# G0081e

#### 'Faster' cable to Japan

Google will join five Asian telecommunications firms to build and operate an underwater cable system from the US to Japan to support rising bandwidth usage and link Google data centers across the world.

The optical fiber system, named 'Faster' will initially have a data capacity of 60 terabytes per second. Construction will begin immediately, with completion targeted for the second half of 2016. It will be landed at Chikura and Shima in Japan, and will connect to neighboring cable systems to extend Internet capacity beyond Japan, throughout Asia. In the US, the system will connect to major hubs on the west coast such as Los Angeles, San Francisco, Portland and Seattle.

Around \$300 million will be invested in the system by Google, China Mobile International, China Telecom Global, Malaysia's Global Transit, Japan's KDDI and Singapore's SingTel.

"The agreement announced today will benefit all users of the global Internet," said Woohyong Choi, the Faster executive committee chairman.

It will benefit Google by helping the company to connect its data centers in the US and Asia, and to better serve its own internal capacity needs. 'Unity', a separate, but similar, undersea cable system also backed by Google, went into service in 2010 and another Google-backed cable, the southeast Asia-Japan system, went live last year.

# Well done is better than well said

Benjamin Franklin

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#### Power to the city

The US department of energy has issued the final environmental impact statement (FEIS) for the \$2.2 billion Champlain Hudson Power Express (CHPE) transmission line.

The 333-mile HVDC line, under development by Transmission Developers, is scheduled to run from the Quebec border and under Lake Champlain and parts of the Hudson River to New York City. FEIS was issued on completion of the environmental review, carried out by the department of energy in cooperation with other federal and state agencies.

The transmission project will deliver up to 1,000MW of wind and hydropower to the New York metro area.

Transmission Developers CEO Donald Jessome said: "The CHPE transmission line will provide clean, affordable power while minimizing community and environmental impacts, and it offers a creative solution to meet the energy challenges of the future."

The project is expected to reduce energy costs for consumers and businesses by \$650 million per year, as well as help New York meet its clean energy goals and increase the security of the state's electric grid.



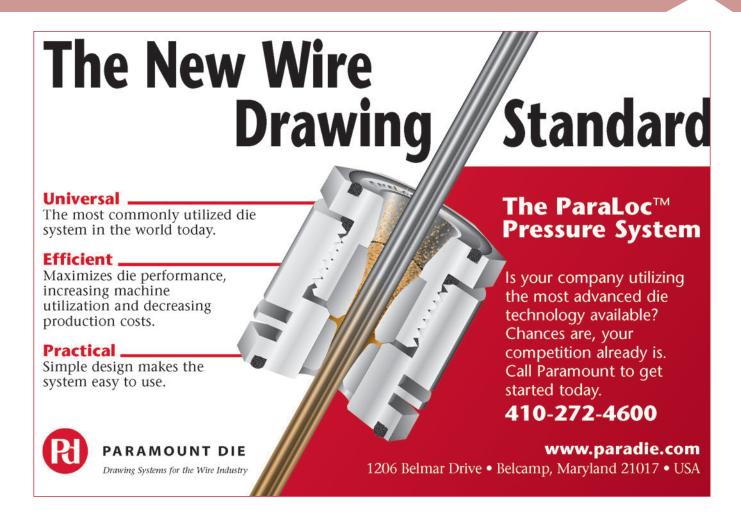
#### Wires acquisition

EIS Inc, a wholly owned subsidiary of Genuine Parts Company, has acquired the assets of Oklahoma-based Insulation and Wires Inc (IWI). Insulation and Wires is a distributor and fabricator of process materials used in electrical OEM, motor repair and energy markets in the south central region of the USA.

Bob Thomas, president and CEO of EIS, said: "IWI will give us additional market strength in this part of the country and improves our

ability to serve current electrical customers as well as customers in the energy markets. We are pleased to welcome the IWI team to the EIS family."

Micky Sullivan, president of IWI, said: "We are fortunate to be joining the EIS and GPC team. They possess the resources and support that we have needed to expand our business and to better serve our current customers. We look forward to our future together."





# Multi-state transmission line

PPL Corp is planning a 725-mile transmission system to bring energy from the Marcellus Shale natural gas fields to customers on the eastern seaboard.

The 500kV line would possibly span Pennsylvania and reach into New York, New Jersey and Maryland, at a cost of between \$4 billion and \$6 billion, and it could take over a decade to build.

"We don't have a specific per-megawatt-hour estimate right now, but our analysis shows consumers in these states would save hundreds of millions of dollars per year in power costs," said PPL Electric Utilities spokesman Paul Wirth.

A rough map produced by the company shows a line running from Pittsburgh through Pennsylvania's rural northern tier and into the New York City region. A second line branches south through the Susquehanna River corridor into Maryland, while a third spur runs through the Lehigh Valley and Pocono Mountains into central New Jersey.

The project requires regulatory approval, and the company has begun the process with a submission to PJM Interconnection, the regional coordinator for wholesale energy.

Pennsylvania Public Utility spokeswoman Robin Tilley said her agency requires an application that specifies the cost and route and demonstrates it is the best option on a set of criteria that includes safety, environmental impact and effect on scenery, historic places, landscape and wildlife.

If construction begins by 2017, PPL believes the work could be complete around 2023-2025.



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#### Subsea specific protection

At a recent Google Cloud event in Boston, product manager Dan Belcher revealed that the company will be armoring its trans-Pacific undersea fiber optic cables in a Kevlar or similar material, to protect them from shark bites. According to the technology news website Network World, Belcher said the covering is part of Google's work to protect its infrastructure.

The individual fiber cables, part of the infrastructure for Google Fiber, are made

of glass and so are extremely fragile, requiring them to be wrapped in several layers of protective material.

Shark attacks on undersea cables have been reported since the 1980s. It is thought that sharks may mistake them for prey because of the electrical fields emitted by the cables, or it may simply be through curiosity.

## Compound expansion



Prysmian Group will invest in a new compounding facility

for medium voltage cable insulation and add a second vertical continuous vulcanization line (VCV) to its Abbeville plant. Construction will start later this year, with production anticipated to begin during the second half of 2015.

The Abbeville plant is celebrating 50 years of production and continuous improvement and expansion. The addition in 2009 of the vertical continuous vulcanization process, housed in a 373-foot high tower, was the first of its kind to produce extra high voltage power cables in North America.

## Miltec appointment



Michael Hughes has assumed the position of regional sales manager for Miltec UV, covering the US northeast and eastern Canada.

Michael lives in Bolton, MA, where he had been vice president and general manager for the Gotham Inks division of Superior Inks in Marlborough, MA.

Fred Beu, Miltec's director of global sales and marketing, said: "Michael brings exceptional expertise developed over 20 years within the graphics printing and coatings industry, and we are pleased and proud to have Michael representing Miltec."



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# Huntsman to attend wire China

Thermoplastic polyurethane producer Huntsman will be exhibiting at wire China in Shanghai this month.

Representatives from Huntsman's global TPU team will be in attendance to reveal the company's latest developments for wire jacketing and cable accessory applications, and discussing its recently enhanced Asian production capabilities.

In February the company began production of its Irogran TPUs at a new 21,000m² production facility at the Jinshan Second Industry Zone in Shanghai. The plant, which cost \$20 million to build, complements Huntsman's existing TPU resources in the USA and Germany, and will help the business meet fast-growing demand for its materials across a range of consumer and industrial markets in Asia – including the wire and cable sector.

This year at wire China the business will showcase a number of developments specifically for the wire and cable market. Available under Huntsman's established Irogran brand, all of the products are said to offer excellent physical properties and have been designed to meet emerging market trends.

Henry Yao, commercial manager TPU Greater China, at Huntsman, said: "The wire and cable industry is a strategically important part of our technical extrusion business and we're continually evolving our product portfolio to meet the needs of our customers. In line with sector requirements we've recently developed a number of additional TPU grades. These novel solutions have been designed to set new standards in terms of chemical and abrasion resistance, flame retardancy and UV stability."



#### Connecting New York

iPhotonix Inc's iVolve technology has been chosen by Bridge Point Communication to supply fiber optic connectivity to subscribers in the greater Ticonderoga area of upstate New York. The iVolvAe product will allow Bridge Point to deliver FTTH services capable of meeting the demands of IPTV, high speed Internet and high definition video.

"We selected iPhotonix's iVolve device because of its market-leading combination of capacity, capability, and the flexibility to work in a variety of installations," said Tony Macey, vice president of Crown Point Telephone Corporation, operators of Bridge Point. "With iPhotonix, we can deliver the bundled products our customers expect."

"The iVolve Platform provides the perfect balance of cutting edge technology with backward compatibility," added Jeff Mulqueen, vice president of business development.



#### New manufacturing plant

Encore Wire Corporation is building a 250,000ft<sup>2</sup> expansion to its existing aluminum manufacturing plant in McKinney, Texas, at a cost of between \$41 million and \$46 million. The plant expansion is part of the company's capital expenditure plan for 2014 and 2015 and will include the purchase of equipment to produce aluminum wire and cable.

Commenting on the announcement, Daniel L Jones, president and CEO of Encore Wire Corporation, said: "Encore Wire has experienced steady growth throughout its history. In order to plan for our future and continue the long term growth of the company we have continued to increase our product offerings to our existing customer base in the building wire category.

"In 2006, we opened a new armored cable plant, and in 2008 we opened a plant dedicated to the production of large tray cable. In 2012 we opened a new plant dedicated to the production of aluminum building wire. The aluminum building wire sales have exceeded our expectations, with gross sales totaling over \$100 million in the last four quarters.

"We also strongly believe that our ability to offer aluminum building wire has helped to increase our copper building wire sales over the last two years.

"We continue to believe that copper will be the conductor of choice in most building wire applications, but we will offer aluminum to those customers who want it."



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#### Prestressed acquisition

Insteel Wire Products Company, a wholly owned subsidiary of Insteel Industries Inc, will buy two plants from American Spring Wire Corp (ASW), one in Newnan and a second in Houston, for \$36 million.

ASW manufactures prestressed concrete strand at its Texas and Georgia facilities. For the 12 months ended 30<sup>th</sup> June 2014, ASW's sales of the strand were \$67.8 million.

Underthetermsofthepurchaseagreement, Insteel will acquire the accounts receivable and inventories related to ASW's PC strand business, the production equipment at ASW's facility in Houston, Texas, and the production equipment and facility in Newnan, Georgia. Insteel will lease the Houston facility from ASW. The purchase

price is subject to an adjustment, yet to be determined, based upon the closing working capital balance.

"The ASW acquisition significantly enhances the footprint of Insteel's PC strand business in our largest and highest growth markets," said HO Woltz III, Insteel president and chief executive officer.

"We also believe that the integration of these operations with our existing PC strand facilities in Tennessee and Florida will provide considerable synergy potential through higher productivity levels and improved operating costs."

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#### Labrador link

Quanta Services Inc has announced that Valard Construction, a Quanta Services company, has been selected by Labrador-Island Link Partnership, a subsidiary of Nalcor install transmission Energy, to infrastructure for the Labrador-Island Transmission Link project. Valard will install approximately 1,100km of 350kV overhead high voltage direct current transmission line running from the Muskrat Falls hydroelectric generating facility in central Labrador to Newfoundland's Avalon Peninsula.

"Valard has a proven track record of delivering large transmission projects in Canada and we are confident in their capability to complete this critical component of the Muskrat Falls project," said Gilbert Bennett, vice president, Lower Churchill Project for Nalcor Energy. Quanta Services expects the project to be completed during the summer of 2017. Valard's scope of work includes all construction aspects of the project, including geomatic services, management of right-of-way clearing, access and reclamation, installation of concrete foundations, tower assembly and erection and conductor stringing.

"Valard is proud to be part of this historic energy project Newfoundland and Labrador," said Adam Budzinski, president of Valard Construction, "Inaddition, construction of the Labrador-Island Transmission Link provides job opportunities to our large Newfoundland and Labrador workforce currently working on projects in Alberta and British Columbia, which should positively impact the local economy."









#### Super grid

AMSC and ComEd will develop a deployment plan for AMSC's high temperature superconductor technology to strengthen Chicago's electric grid with a superconducting cable system.

The Resilient Electric Grid (REG) effort is part of the US department of homeland security, science and technology directorate's work to secure the nation's electric power grids and improve resilience against extreme weather, acts of terrorism, or other catastrophic events.

Anne R Pramaggiore, president and CEO, ComEd, said: "We view this project as a natural extension of the infrastructure improvements and technological upgrades that have been underway for the past two years, as we develop and deploy the smart grid. Linking our critical urban infrastructure to this superconductor

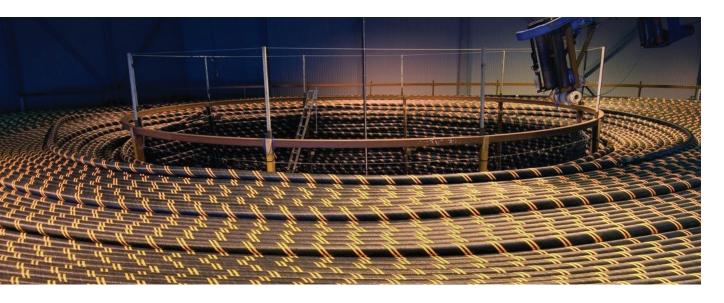
system would provide added reliability, resiliency and security to Chicago's central business district."

The current design of the grid infrastructure in many cities makes restoration of power, after a catastrophic event, time consuming, costly, and unpredictable. The REG will be a self-healing solution in the event that portions of the grid are lost for any reason. The ComEd installation would be the first commercial application of this technology in the United States.

"In addition to providing reliable power and increased security, this installation of more than three miles of superconductor cable would create the most extensive superconductor project of this nature in the world," said Terence R Donnelly, ComEd's chief operating officer.

As provided in the contract, AMSC will initiate a similar deployment plan with at least two other US utilities.

#### US seeks advice



PMSS America Inc, the US division of global renewable energy consulting firm TÜV SÜD PMSS, supported by submarine cable specialist Red Penguin Associates Ltd of the UK, has been selected to provide strategic guidance on cable spacing for US offshore wind projects to the US department of the interior and bureau of safety and environmental enforcement.

With a number of US offshore wind initiatives already under development and progressing to financial close, North American regulatory authorities require a clear understanding of the regulatory and environmental parameters associated with the installation and use of offshore transmission and collection (inter-array) system cables.

Under the terms of the deal, TÜV SÜD PMSS will draw upon the technical experience of Red Penguin Associates

on international interconnector, subsea cabling and transmission projects, working directly with developers and regulators to research and identify best practices for US offshore wind submarine cable spacing guidance.

This collaboration will form the basis of a department of the interior report to determine and assess the best possible cable spacing for transmission and inter-array connectors – informing and educating the critical investment, insurance and regulatory communities.

Chris Sturgeon, managing director of Red Penguin, said: "Our experience has shown the importance of bringing together, at the earliest opportunity, the various strands of regulation, engineering and environmental management necessary for successful control of inherent risk on submarine cable projects."



General Cable has reported slightly higher than anticipated second quarter earnings, but its stock fell almost 10 percent.

Adjusted earnings of 29 cents per share beat the average analyst estimate, but is down from 35 cents per share recorded for the same period last year. Adjusted operating income came in at \$57 million, also down from adjusted operating income of \$64.5 million in the second quarter of 2013.

General Cable CEO Gregory Kenny said that both earnings per share and operating income fell within the management's guidance range for the second quarter. Of the copper and wire cable manufacturer's performance, he said: "The wire and cable industry has been wading through a lengthy and uneven recovery."

General Cable is in the midst of a restructuring that includes the closure of three facilities in India, Peru and Mexico. Kenny said the restructuring program will result in \$12 million in annual savings after a \$50 million one-off cost.

General Cable projected an outlook of \$200 million to \$230 million in adjusted operating income for 2014.

# EUROPE NEWS

# Calls for action over Carrington Wire

A member of the UK parliament is calling for the prime minister to intervene to save the pensions of 500 former Carrington Wire workers.

Barnsley Central's Labour MP, Dan Jarvis, has raised repeated concerns about the length of time taken by the pensions regulator to complete its investigation into the pension scheme at Carrington Wire. Concerns have been raised that former staff face 'serious hardship.'

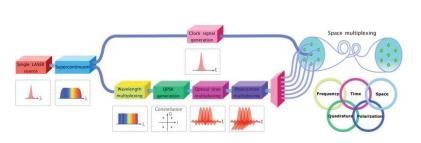


Carrington Wire closed in 2010. Russian parent company Severstal said the decision was due to a contraction in the steel wire market. In 2010, Craig Whittaker,

the Conservative MP for Calder Valley, wrote to the pensions regulator, calling for an investigation into the position of the company's pension scheme after Carrington Wire was sold out of the Severstal group.

A Severstal spokesman said: "Severstal acquired Carrington Wire in 2006. In spite of financial support and initiatives to return the business to profitability, a dramatic contraction of the market for steel wire led to the company, after exploring all options, winding down and selling the business in 2010. Severstal met all of its obligations to fund the pension scheme while Carrington Wire was under its ownership."

A spokesman for the pensions regulator said: "The investigation is ongoing, and a hearing is listed and due to commence in January 2015, where the Determinations Panel will be asked to make a determination in accordance with the provisions of the Pensions Act."





The high-speed optical communications (HSOC) team at DTU Fotonik has secured the world record in data transfer, proving that it is possible to transfer 43 terabits per second with just a single laser in the transmitter. The previous record was 32 terabits per second, held by researchers at the Karlsruhe Institut für Technologie.

The worldwide competition in data speed is contributing to the development of technology to accommodate the growth of data traffic on the Internet, estimated to be growing by 40-50 percent annually.

Emissions linked to the total energy consumption of the Internet currently account for over two percent of global man-made carbon emissions, making it essential to identify solutions for the Internet that make significant reductions in energy consumption while simultaneously expanding the bandwidth.

The record was achieved using a new type of optical fiber borrowed from Japanese telecom NNT. The fiber contains seven cores, transferring more data than a standard fiber with a single core, but is no larger than a standard fiber.

DTU Fotonik's HSOC team has held the world record in data transmission on several occasions.



#### Subsidiary sale

Estonia's state-owned electricity producer, Eesti Energia, has sold its subsidiary, Eesti Energia Võrguehitus to Leonhard Weiss Baltic Holding.

Established in 2009 to design, construct and maintain electricity networks across Estonia, Vőrguehitus will now operate under the name Leonhard Weiss Energy AS.

In recent years Eesti Energia's strategy has focused on the oil shale business, and the company has shed several peripheral businesses.

Alexander Schneider, chairman of the management board of Leonhard Weiss Baltic Holding, believes the acquisition is an important step for the company, enabling its Baltic arm to advance strategically.

The new owner of Vőrguehitus, Weiss Baltic Holding, is a subsidiary of the German company Leonhard Weiss and has been building and maintaining railways in Estonia since 2011, whilst also providing construction services in Germany. Founded as a family business in Germany in 1900, Leonhard Weiss currently employs a total of 3,833 employees, with 250 located in Estonia.

Employment contracts for the majority of employees at Vőrguehitus will be transferred to the new owner without change.





#### **Indian link**

India's state-run Power Grid Corporation has awarded a contract to Alstom for an ultra-high voltage direct current transmission link between Haryana and Chhattisgarh.

This new 3,000MW transmission link will run parallel to the first UHVDC transmission link, built by Alstom in 2012, to increase the total transmission capacity of the system to 6,000MW. The link will transfer power from the Chhattisgarh region to the load center in the northern region of the country, Alstom said.

The contract will include converter terminal stations, converter transformers, gas-insulated switchgear, substation equipment, and communication and supervisory control and data acquisition systems (SCADA), and all equipment will be manufactured by Alstom's facilities in India, United Kingdom, France and Italy.

Elsewhere in India, Alstom has supplied HVDC systems for Vizag (Andhra Pradesh), Chandrapur (Maharashtra) and Sasaram (Bihar).



#### Mill improvements

Over the past four years, ArcelorMittal has invested around \$267 million at its site in Duisburg, Germany, of which \$180 million was spent on a new wire rod mill. The rod mill can process high strength and ultra high strength steels, using the latest technologies to enable thermo-mechanical rolling processes.

A new factory laboratory has also been installed alongside the rod mill, for quality control.

Further investment includes the changeover to a symmetrical format for a continuous casting line. The new format will produce high quality steel ingots suitable for automotive forgings, such as gearbox parts and crankshafts that create less vibration and therefore reduce noise emissions.

ArcelorMittal's Duisburg site supplies semi-products for forging, as well as high strength and ultra-high strength wire rods for the automotive industry and renewable energy applications, for fastening elements and machine building.



#### Islands' seabed survey

The seabed between Guernsey and Jersey is being surveyed ahead of the laying of a second undersea electricity cable. The survey, expected to take about two months, will collect environmental data and search for unexploded ordnance and wreckage.

The planned route is similar to the route of the existing cable, from Greve de Lecq in Jersey to Havelet Bay in Guernsey, then on to Barker's Quarry.

The undersea ground conditions will determine whether it will be possible to bury the cable. A spokesman for the Channel Islands Electricity Grid said the aim of the second cable is to provide a more reliable, affordable, secure and sustainable electricity supply for both islands.

Guernsey and Jersey import electricity from the French national grid when it is cheaper than domestically produced power.



#### Russian cable venture

Russian state-owned industrial group Rostec, and Japan's Sumitomo have launched a new joint venture in Yekaterinburg, Russia. The plant's output will consist of cables and wiring harnesses for supply to auto manufacturers Avtovaz, Renault and Nissan.

According to data released by Rostec the newjoint venture, called Ural Wiring Systems, has a workforce of about 290, with a further 360 jobs to be created in Yekaterinburg by the end of this year. Rostec and Sumitomo say they are aiming to invest about €6.3 million in the joint venture.

Sumitomo Wiring Systems and Radio Equipment Plant (part of the holding company Ruselectronics) agreed to establish a joint venture in February 2013. Ural Wiring Systems became certified in international standards in April 2014 and the Yekaterinburg plant underwent a technological audit performed by the representatives of Renault, Nissan and Avtovaz during June and July 2014.



#### Confusion over Lucchini sale

A JSW executive has cast doubt on previous assertions that the insolvent Italian steelmaker, Lucchini, was in process of acquisition by India's JSW Steel.

Lucchini, formerly owned by Russia's Severstal, was declared insolvent in 2012 and placed under special administration. Although Italian prime minister Matteo Renzi has said that a deal between Lucchini and JSW Steel would be concluded in 'a matter of days,' JSW joint managing director Seshagiri Rao said the company has yet to finalize any deal.

JSW became the only Indian bidder after Jindal Steel and Power pulled out after showing an initial interest.

Piombino-based Lucchini owns a blast furnace, a steel mill, a coke plant and three re-rolling mills. It can produce about 2.5 million tonnes of steel a year.

A source close to JSW said that the company has made a binding bid for two processing facilities only – the wire rod mill and a rail mill – and that the "bid amount is not big." Industry sources in Italy said that the bid also included Lucchini's third rolling mill, the bar mill, and the port facilities.



#### Joint venture's cable laying contract

Royal Boskalis Westminster NV (Boskalis) has announced that VSMC, its cable-laying joint venture with VolkerWessels, has been given a contract by Sandbank Offshore Wind GmbH (itself a joint venture between Vattenfall and Stadtwerke München). The scope of work for VSMC includes cable supply, CPS, installation, post lay burial and termination and testing of 76 infield cables.

The Sandbank offshore wind farm is situated in the German Bight, next to the DanTysk offshore wind farm. The 72 wind turbines will generate a total capacity of 288MW.

The project execution is scheduled to begin during August 2015 and to be completed by mid-2016.







#### Improved show services for members

The world's largest corporate membership association for the wire and cable industry – the International Wire and Machinery Association – will be providing a host of hospitality services for its members and their clients to use later this year at wire China and Wire & Cable India.

With a larger stand than in previous years, more centrally positioned for the convenience of members, the IWMA continues to be a valued industry partner of 'wire'.

For wire China 2014, taking place from 24<sup>th</sup> to 27<sup>th</sup> September at the Shanghai New International EXPO Centre (SNIEC), and Wire & Cable India 2014 which will take place at the Bombay Convention & Exhibition Centre in Mumbai from 28<sup>th</sup> to 30<sup>th</sup> October, the IWMA will offer improved services to members such as hospitality facilities, meeting and office space, translation services, Internet facilities and general exhibition advice and assistance.

In fact the IWMA stand at all regional wire shows will mirror the quality and range of services that are provided at the Düsseldorf show, the largest in the industry, and provide greater visibility for the association and its members alike, whilst continuing to provide the highest level of support and expertise that everyone has come to expect.

Shell scheme stand application packs for these prestigious wire and cable exhibitions are available upon request from the IWMA office. Once completed, they should be returned to the IWMA or forwarded directly to Messe Düsseldorf, which will then confirm your company stand allocation.

If your company wishes to exhibit at either of these well-established exhibitions, then please contact the IWMA office for an application pack. We would be delighted to help.

#### **WIRE CHINA 2014**

wire China, launched in 2004, co-organised and developed jointly by Messe Düsseldorf and its subsidiary in China together with Shanghai Electric Cable Research Institute, has now become the leading trade fair of its kind in Asia, not only in exhibition scale but also for its international influence.

Over the years it has been playing an irreplaceable part in the industries' trading and communication aspects. Together with industry players, wire China is committed to driving the development of China's wire and cable industry, witnessing achievements and exploring opportunities. The trade fair is widely acclaimed among Chinese and foreign exhibitors and visitors alike.

#### **WIRE & CABLE INDIA 2014**

Just a month later it will be the turn of Mumbai to host countries from around the world with the increasingly popular Wire & Cable India.

The main customers for the wire and cable industry in India are the automotive, telecommunication and construction industries and all will come together for the 5<sup>th</sup> Wire & Cable India international exhibition. In the past few years, these three industries have witnessed a rapid expansion and that has led to an annual growth of about 25 per cent in India.



#### CabWire 2015 world technical conference – a date for your diary!

The IWMA is delighted to announce that the 7<sup>th</sup> biennial CabWire world cable and wire technical conference will take place on Tuesday, 3<sup>rd</sup> November 2015 in Düsseldorf, Germany, home of the wire industry.

The conference will be held at the Congress Center, and is already attracting interest following the successful CabWire conference which was held at the Palazzo Turati, Milan, in November last year, and attracted 200 wire and cable professionals from all over the world.

Preparations are well under way with Dr Probst, retiring CEO of Leoni AG, committed as a keynote speaker, and Arcelor/Mittal preparing to host a visit for delegates to its rod mill in Duisburg on Wednesday, 4<sup>th</sup> November.

There will also be an event at a downtown Düsseldorf location on the Tuesday evening where delegates will get the chance to network and socialise.

If you would like to be involved by presenting a paper at this exciting event, then please forward by email a short abstract of no more than 50 words to the IWMA office at info@iwma.org

There are also a variety of promotional opportunities available, such as sponsorship and table top displays. Similarly, if you are interested in attending as a delegate and would like to be kept up to date with conference developments then please get in touch.

#### Follow us...

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.



www.iwma.org

# ASIASAAFRICA NEWS



## 36 days of wire

Wire finds its way into every area of modern life. Now, female Chinese artist, Zhou Jie is spending 36 days living in an art gallery, and sleeping naked on an iron wire bed.

Since 9<sup>th</sup> August, Jie has been sleeping, eating, washing and using her mobile 'phone in front of onlookers at Beijing's Art Now Gallery. Although the artist hasn't revealed the reasoning behind her exhibit, crowds of Beijing art goers have passed through the Art Now Gallery to watch her. The project finishes on 13<sup>th</sup> September.

The art project has attracted attention in an online Chinese publication, with locals

questioning its artistic value. One viewer commented on website chinaSMACK: "Look at Korean performance art, then look at domestic ones. Is art in our country only streaking? No wonder women in our country have a lower and lower sense of shame, all a result of these garbage artists streaking everyday!" Another reviewer wrote: "So this is a so-called artist; very unreliable."

Zhou Jie will spend some of her time weaving 'plush toy' shapes from iron wire.



### Stormproof fiber

After powerful storms caused extensive damage to communications facilities, the telecoms company Philippine Long Distance Telephone (PLDT) is to make its network more resilient by putting its fiber optic data transmission network underground.

PLDT is currently completing the below-ground installation of a fiber optic link between llocos Norte to Tuguegarao in Cagayan Valley. The new fiber will provide another loop in PLDT's domestic fiber optic network (DFON) and will add an alternative route for communications traffic.

"The more fiber we bury underground, the more robust our network will be in the face of the storms that have been hitting the country with growing strength," said Rolando G Pena, PLDT Group technology head.

PLDT's DFON runs through more than 88,000km of onshore and subsea fiber optic cables, and connects the Philippine archipelago through several cable landing stations. It has a total capacity of 5.15Tb per second.

Last month, the telco completed a new third leg between the Visayas and Mindanao regions running through the island of Bohol. It has also launched a new fiber link to the Palawan island group.



### **Power in agreement**

ContourGlobal has signed an agreement with the Senegalese national utility, Societe Nationale d'Electricite du Senegal (Senelec) for the construction of a 53MW thermal facility. The facility will burn heavy fuel oil and natural gas, and when completed in 2015 will be the lowest cost liquid fuel and natural gas-fired power plant in Senegal.

The project, located on the outskirts of the capital city Dakar, and called ContourGlobal Cap des Biches, will be constructed on an existing power plant site acquired by ContourGlobal in May 2013.

The agreement was signed at the embassy of the Republic of Senegal in Washington DC at the start of the inaugural US-Africa leaders summit.



### **UK solar acquisition**

Trina Solar has acquired Good Energy Group's 49.9MW utility scale, ground mounted power project in the UK.

The solar power plant, which will feature Trina Solar's PV modules, secured planning consent in January 2014. Completion of construction is expected some time in the third quarter of 2014, and the plant will be connected to the national grid before the end of the first quarter of 2015.

If connected before the end of March 2015, the facility will be entitled to receive 1.4 renewables obligation certificates (ROCs) per megawatt hour.

Trina Solar's chairman and CEO, Jifan Gao, said: "This new project represents a new step forward for Trina Solar in the UK following the completion and grid-connection of our first two projects that totaled an installed capacity of 23.8MW. As a mature and fast growing PV market, the UK presents opportunities for Trina to continue to invest in the downstream business. With a diversified downstream pipeline in China, Europe, Japan and Middle East, we are well positioned to realize our goal of 400MW to 500MW project developments this year."



### Aker looks to Korea

The Korea Times has reported that LS Cable has agreed to supply cable to Aker Solutions of Norway, becoming the first Korean cable manufacturer to be designated as a cable supplier by the global engineering company.

Under the seven-year contract, LS Cable will supply its subsea, power and system controlling cables for use in exploration equipment and offshore plants managed by Aker Solutions. "The agreement is expected to generate at least \$100 million in sales by the end of the contract," a spokeswoman said.

Since 2009, LS Cable has been manufacturing subsea power cables at its plant in Donghae, Gangwon province. Company officials said the agreement will help LS Cable find additional business opportunities in the segment as subsea cables become increasingly important in modern power and data transmission.

Research and Markets, a firm that studies and reports on business trends, predicts the subsea cable market will grow nearly 10 percent to the end of 2016.



# Fiber optic cable in Ethiopia

The Finland-based intranet solutions provider Eltel has signed a major contract with China's Huawei Technologies for a project in Ethiopia.

According to Eltel, the contract includes the installation of approximately 1,600km of optical ground wire (OPGW) on existing power transmission lines. The work will be carried out on live line conditions for the first time in the country.

The venture, part of a larger national grid development and improvement project, is expected to be complete by the end of 2015. It is expected that the new OPGW will: "Enhance the utility's internal communication capabilities, and it will also provide a high quality backbone for third party users."



# Possible renewal of European tariffs

The European Union may renew its tariffs on Chinese wire rod for another five years, to curb competition for EU producers.

The EU is considering whether to re-impose the duties, up to 24 percent, on wire rod imports from China. The levies punish Chinese exporters for having, allegedly, sold wire rod in Europe at below cost.

The official journal of the European commission reports that the inquiry will determine "the likelihood of a continuation or recurrence of dumping and injury" to the EU industry. The anti-dumping duties were due to lapse in late August, but will now stay in place during the investigation, which could take up to 15 months.

The trade protection was introduced in 2009, after China increased its share of the EU wire rod market to five percent in the 12 months to March 2008, from 0.3 percent in 2004.

The probe into whether to renew the levies stems from a request by the European steel industry group Eurofer, on behalf of the producers of over a quarter of EU wire rod output.



# TALCO dip leads to power reduction

to Accordina a report from the monitoring and early notification center of the economic development ministry of Tajikistan, electricity production by power plants administered by Barki Tojik, the national power company of Tajikistan, was reduced by 23 million kilowatt hours during July, compared with July 2013. The lower production was a result of the reduction in energy demand by TALCO (Tajik Aluminium Company).

The report also revealed that, during July, production volume was at 50.1 million kilowatt hours in 24 hours, with 168.4 million kilowatt hours provided to Afghanistan from power plants Sangtouda-1 and Sangtouda-2 through 220kW and 110kW channels.

Approximately 11 percent of the electricity produced in Tajikistan is exported to Afghanistan, with around 1.5 million kilowatt hours of energy exported to Kyrgyzstan on a daily basis.



# World Bank's Vietnam funding

The World Bank has approved a \$500m loan to help Vietnam build and improve electricity transmission throughout the country. The project demands an investment of \$731.25 million, of which \$500 million will be provided by the International Bank for Reconstruction and Development, the World Bank's lending arm for middle-income countries.

The Socialist Republic of Vietnam will finance the remaining \$231.25 million required for the project, which includes building over 1,000km of 220kV and 500kV transmission lines and providing smart grid support technologies.

The World Bank believes that capacity building will contribute to the development of a national power transmission company for the country.

# PRODUCTS MACHINES TECHNOLOGY

### Fire safe data

Helukabel's Helucom FS90 range offers a fiber optic cable that ensures data communication is maintained for 90 minutes – even in the event of fire. This feature is especially important in underground train tunnels, computer centers, and in mining or other environments where signal transmission is essential.



Based on the IEC 60331-25 standard, Helukabel has tested its latest cable for function and data transfer under the influence of flames at 750°C for over 90 minutes. The maximum damping increase was maintained at E9/125  $\mu$ m 0.12dB in single mode and G50/125  $\mu$ m 0.27dB in multimode.

The Helucom FS90 range also meets IEC 60332-1+60332-3 (flame resistance); IEC 61034 (smoke/gas proof); IEC 60754-2 (halogen free); and EN50267-2-3 (corrosiveness) standards. Four cable types are available as standard inventory:  $4\ G50/125\ \mu m\ OM2$  (803917),  $12\ G50/125\ \mu m\ OM2$  (803918),  $4\ E9/125\ \mu m\ G652.D$  (803920).

### PANDA-ing to small radius demand

Fujikura's new ultra bend-insensitive PANDA fibers, the BISM15-PX series, are designed with less than 0.1dB of bending loss and less than -30dB of polarization crosstalk at 1,550nm with a winding condition of 7.5mm bending radius and ten turns.

The BISM15-PX series is designed to meet demands for telecommunications polarization-maintaining optical fibers that maintain their characteristics while bending with a small radius. The fibers use Fujikura's FutureGuide BIS-B technology, offering less than 0.5dB/turn at 1.55 µm of bending loss with a winding condition of 7.5mm bending radius.

Two fiber types are available, one with a  $245 \mu m$  outer diameter and coated with UV resin, and the other jacketed with Hytrel with a  $500 \mu m$  outer diameter.

### Making cable, super-fast

Switzerland-based ABB Inc is making 525kV super-fast cable at its Huntersville, US plant. "This major technology breakthrough will change the feasibility of renewable energy projects and play a defining role in using underground and subsea high voltage cables to integrate renewables over long distances," Ulrich Spiesshofer, CEO of ABB, said in a press release.

The cable will allow cities to move power from offshore wind turbines up to 1,500 miles away, a 50 percent improvement over the traditional 320kV cable now in use. A pair of the new cables will carry enough electricity to supply two million households, ABB claims.

Instead of requiring power plant construction on the edge of modern cities, the cable will allow electricity to be pulled from distant green sources, such as wind and solar installations.



ABB has about 135 employees at the Huntersville plant, which began production in 2012.

### **Premises wiring**

latest addition AFI's to the Premise MicroCore product line, sub-unitized Premise MicroCore 3.0, is designed for data centers, central offices and other high performance applications. MicroCore 3.0 provides greater fiber density in a compact 3mm frame. By utilizing a 24-fiber loose tube design, MicroCore 3.0 can house up to 288 fibers while maintaining its flexible form, so optimizing space in a new or existing routing infrastructure.

MicroCore 3.0 provides end users with a 400 percent increase in pathway capacity as compared to a 900 µm tight-buffered solution, and the loose tube design allows for greater fiber management than stacked ribbon cables. The cable's smaller diameter can optimize data center airflow and provide greater cooling efficiency.

As with all MicroCore products, each loose tube sub-unit is independently qualified as a standalone interconnectivity cable, suitable

for direct termination with a round boot MTP or used in complex routings of top-of-rack or side-rack installations.

### **Expanded VFD inventory**

Alpha Wire will carry an expanded inventory on all sizes of variable frequency drive (VFD) cable, from 4/0 to 16 AWG, including its own Series V line of VFD cable and the new V-Flex, a flexible version of the Series V.

The round design of Alpha's Series V cables helps achieve a liquid-tight IP67 or NEMA 6 designation, while the XLPE core coupled with a foil/braid shield (copper tape in the larger AWG sizes) controls the stressful high frequency signal common in VFD systems. The V-Flex features the same benefits in a flexible configuration for on-machine applications where routing can be an issue.

Designed to be compatible with systems from all major VFD manufacturers, Alpha's VFD line encompasses both 3- and 4-conductor versions. UL TC-ER and CSA TC rated, Alpha VFD is said to handle voltage up to 1kV per the UL flexible motor supply cable rating.

### Shock absorbing cable

Cicoil's highly flexible cables are designed for use in applications exposed to harsh vibration caused by propelling force, automated machinery, excessive turbulence, intense wind, driving rain and rough seas. The Cicoil design is said to provide absolute reliability in the toughest of conditions.

Cicoil utilizes a unique process of completely surrounding and encapsulating conductors in its shock absorbing Flexx-Sil rubber jacket, rendering them unaffected by sudden impact, severe vibration, G-forces, extreme temperatures, submersion in water, UV or the rigors of supersonic flight. Unlike PVC, polyurethane and Teflon jacketed cables, the Cicoil cable does not require a clamping system because the conductors cannot creep out of the encasing Flexx-Sil jacket.

The tear resistant jacket does not require conduit for protection, is self-healing from small punctures, and outer cable jacket damage can easily be repaired in the field. The cable will not wear, crack or deform when exposed tight bending, continuous flexing or operational stress.

For rugged environments where cables are subjected to abrasion, Cicoil offers anti-friction coatings on request.

Cicoil's shock absorbing cables are halogen-free, flame retardant, UL recognized, CE conforming, and RoHS and REACH compliant.

### Cable reaches a new low

General Cable has added Arctic Armor to its CCW product line. The latest addition to the range of continuously corrugated welded cables, Arctic Armor has been designed to perform in the challenging environments of Alaska and beyond. CCW is virtually impervious to temperature extremes, and has passed a -60°C ASTM D746-04 brittleness temperature impact test.



Steve Stanford, General Cable's vice president specialty sales, said: "Our company provides a complete product offering to serve the oil, gas and petrochemical market."

General Cable's CCW line of hazardous location cables includes 300 V/600 V UL type ITC-HL or UL type MC HL, 600 V UL type MC-HL and 3/C VFD and 4/C UL type MC-HL up to 35 kV UL type MC-HL or MV-105, and automation cables.

### Ultrasonic welding for tin-coated wires

Sonobond's ultrasonic system is capable of welding the tin-coated wires and terminals essential to electrical applications for high temperature, high humidity and other environmentally challenging conditions. Tin-coated copper wiring is preferred for marine motors and electronics, appliances, solar panel wiring, and some automotive applications. Sonobond's ultrasonic units are said to achieve consistently reliable welds that remain highly conductive without compromising the protective properties of the tin coating.



Sonobond's Wedge-Reed system uses a vertical, vibrating reed, driven by a wedge-shaped coupler and transducer assembly. With the line of static clamping force directly above the parts to be welded, high clamp force is achieved without bending stress or stalling. The tin coating is dispersed, and the copper wire is welded without impairing the conductivity of the copper.

Previous production methods for tin-coated assembly have included mechanical crimps and resistance welding, but Sonobond believes neither provides acceptable results. Sonobond president Janet Devine explained: "Mechanical fastening is inconsistent, and resistance welding or soldering use more energy and often produce inadequate bonding. Our ultrasonic method is less expensive, uses a fraction of the energy needed for resistance welding, ensures RoHS compliance (which is problematical with soldering), and speeds up the production process."

Sonobond offers a range of ultrasonic welders to handle wire bundle sizes from 1mm<sup>2</sup>, including its SpliceRite™ units for one-pulse wire splicing of up to 100mm<sup>2</sup> in stranded bare copper wire and 60mm<sup>2</sup> in tinned wire.

# ALL the publicity you can get...

Send us the details and a photograph for our new Products, Machines & Technology section in wiredInUSA.

To make sure your editorial is published in the October edition, send us the details by **24**th **September.** 

All editorial should be sent to editor David Bell at **david@wiredinusa.com** 





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