

**HUBBELL**  
Power Systems, Inc.

ENDURING PRODUCTS AND PEOPLE YOU CAN DEPEND ON.

# TIPS & NEWS

[www.hubbellpowersystems.com](http://www.hubbellpowersystems.com)

VOL. 21 NO. 1 | **SUMMER 2017**



*After careful consideration and your input, Tips & News gets a new look. Turn the page for a sneak peak.*



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# ENDURING PRODUCTS & PEOPLE **YOU CAN DEPEND ON**

At Hubbell Power Systems, Inc. (HPS), we know you rely on us for quality, service and excellence. As a result, we'll begin featuring our employees on the cover of *Tips & News*, allowing you to meet the faces serving you every day and making the Hubbell difference.

## **THIS MONTH'S COVER:**

In October 2016, John Menne joined HPS as Director, Customer Service. He is responsible for the overall strategy and performance of the customer service organization.

**John can be reached at [jmenne@hubbell.com](mailto:jmenne@hubbell.com), 573-682-8324 (office) or 314-570-9345 (cell).**

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TIPS AND NEWS  
SUMMER 2017

JOHN  
MENNE  
**SUPERHERO  
SERVICE**

**IN THIS ISSUE:**

- Systems With Intelligence
- 5 Favorite Things About Hubbellville
- Welcome Windsor Communications



# USCO™ SWITCH SERVES PROUDLY FOR 68 YEARS

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On April 7, an employee from Entergy contacted Chris Havlik, Southeast RVP, to notify him that they were removing an old USCO air break switch with a 10-foot wood link in the last section of the handle that opens and closes. It was still in operation and they were curious of its age.

After doing some digging, we discovered the product was originally shipped on August 25, 1949 meaning the product was in operation for 68 years – without fail.

“It’s not really uncommon to hear about switches still in service after 20+ years, but 50+ years is worth talking about,” shared Lawrence Korneghy, HPS. “The last time we had a situation like this was in 2003, and the switch was the same type,” shared Korneghy, “57 years that the first switch was in service and 68 years that this one remained in service – obviously way beyond the warranty period or expected life of the material.”

The 1949 air break switch was an old, copper “grasshopper” switch where the live parts and insulators all moved during operation. The wooden linkage was used for decades as a control rod insulator. They would provide some level of protection between the switch and the operator down below in the event of a flashover during operation.



Switches being manufactured today are very different. The manufacturing techniques and material advancements, as well as the evolution of the industry standards, have brought about an era of light-weight aluminum switches.

*“Most users do not ask for this type of control insulation today, but when they do, that rod would be replaced with a station post insulator,” shared Korneghy.*

This particular air break switch was located in a remote location in Arkansas and was overlooked for a number of years. It was finally noticed and the entire line was upgraded with newer equipment due to age. There were no functionality issues; the utility simply wanted to upgrade to new materials.

Hubbell Power Systems, Inc. continues to manufacture high quality USCO switches with a 10-year warranty on the current generation of aluminum operated switches.

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**Request more info on our Field Technicians from your Territory Manager.**

# In The News

## WE LOVE OUR WORKING MOMS

In honor of Mother's Day, we created a tribute to honor working moms at HPS. Individual photos and stories were posted on social media throughout the month of May. To see our tribute video, visit <https://lnkd.in/eRpPBEj>.

## DADS MAKING A HUBBELL DIFFERENCE

For Father's Day, we featured dads making a difference at home and in their communities. Follow us on Social to see more posts like this.

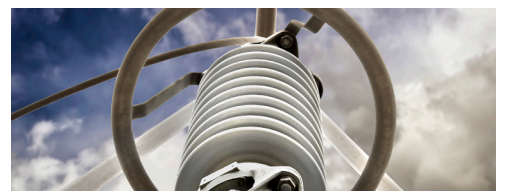


In honor of the 80th anniversary of our CHANCE® Lineman Grade Tools™, we're creating new linemen posters that will be released at the International Lineman's Rodeo in October.

### OHIO BRASS® PRODUCT TRAINING WEBINARS

Arrester Selection	08/08 8 @ 10am EST	08/08 @ 2pm EST
Evolution of Surge Arrester Technology	09/12 @ 10am EST	09/21 @ 2pm EST
Distribution System Reliability Arrester	10/10 @ 10am EST	10/19 @ 2pm EST
Installation	11/07 @ 10am EST	11/16 @ 2pm EST
Hubbell New Products	12/05 @ 10am EST	12/14 @ 2pm EST

Email Lynn Wolf at [LSWOLF@HUBBELL.COM](mailto:LSWOLF@HUBBELL.COM) the webinar you wish to attend.



### DISTRIBUTOR TRAINING

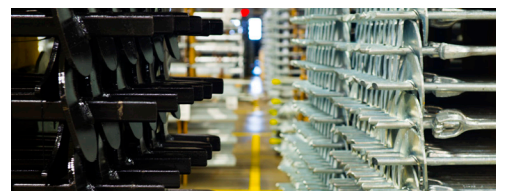
DT201 Aiken - September 12-14, 2017

TO REGISTER NOW VISIT  
<http://hubbellpowersystems.com/training/distributor.asp#DT201>

### UPCOMING TRADE SHOWS - 2017

Anchor and Foundation Seminar	September 23-24	Centralia, MO
ISE Expo (formerly OSP)	September 13-14	Orlando, FL
ICUEE	October 3-5	Louisville, KY
Lineman's Rodeo	October 11-14	Overland Park, KS
SCTE (Cable Tec)	October 17-20	Denver, CO

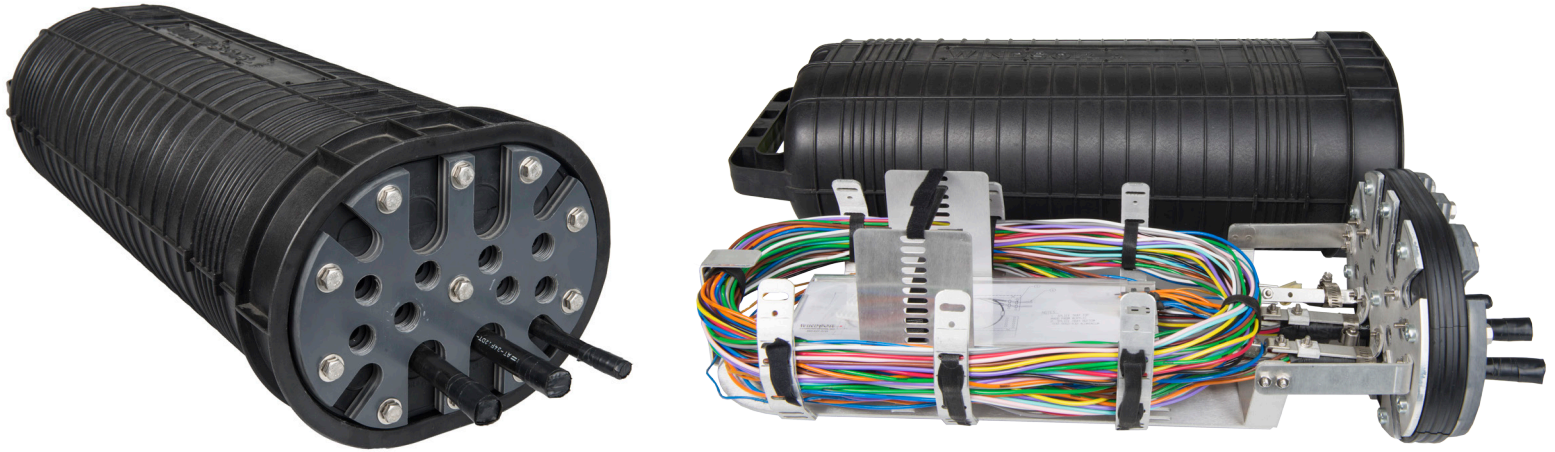
[hubbellpowersystems.com/shows/](http://hubbellpowersystems.com/shows/)



### ANCHOR AND FOUNDATION SEMINAR

Centralia, MO - Aug 23-24, 2017

REGISTER NOW. VISIT  
<http://hubbellpowersystems.com/training/utility.asp>



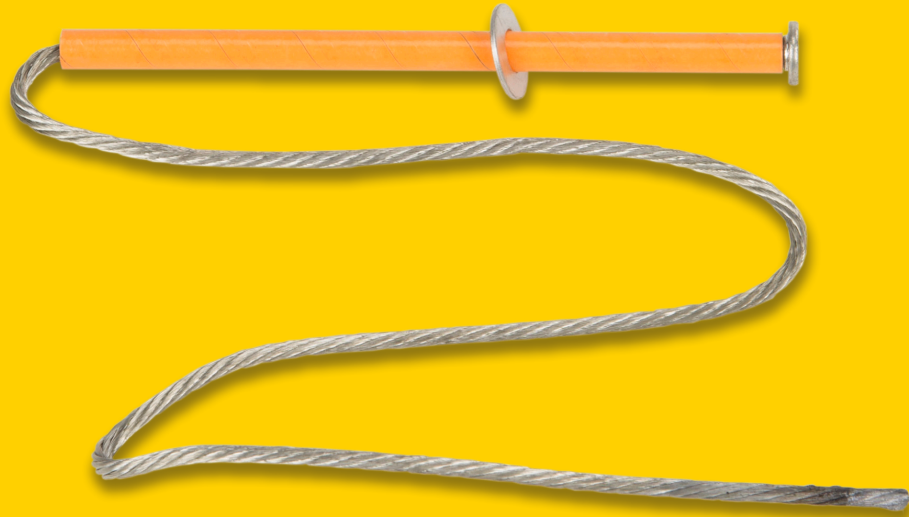
# Welcome to Hubbell®

## WINDSOR COMMUNICATIONS

On January 25, 2017, Hubbell Power Systems, Inc. (HPS) completed the acquisition of Windsor Communications. The roots of Windsor go back to its beginning in the late 1980's as a fiber optic splice closure and accessories business. The Windsor brand contains a broad array of fiber optic splice closure products for the utility and telecommunications markets.

Our product portfolio includes fiber optic splice closures, splice trays, heat shrink sleeves, aerial suspension brackets, fiber optic cable coil storage brackets, bullet resistant canisters and more. We have the ability to manufacture to customers' specific needs. We provide top of the line, user-friendly products at competitive prices with excellent customer service.

All of us at HPS are excited to have the brand in the family to leverage our strengths to serve you with innovative products that solve problems, streamline installation and improve network reliability. For more information contact your HPS Territory Manager.



# THE RIGHT FUSE LINK FOR YOUR APPLICATION

INTRODUCING TYPE Q SPEED (QH) AND STANDARD SPEED FUSE LINKS

Hubbell Power Systems, Inc. has expanded its product offering to include CHANCE® QH and Standard Speed fuse links, bringing the total number of fuse link styles to six. Packaged in protective plastic bags with perforations, our fuse links offer quick, easy opening even when wearing lineman's gloves.

**ADDITIONAL FEATURES:**

Meets all applicable ANSI/NEMA standards | Lead Time: 6-8 weeks ARO  
The brand and quality you trust

# FAVORITE THINGS ABOUT HUBBELLVILLE

1

IMMERSIVE

2

EDUCATIONAL

3

MARKET-BASED

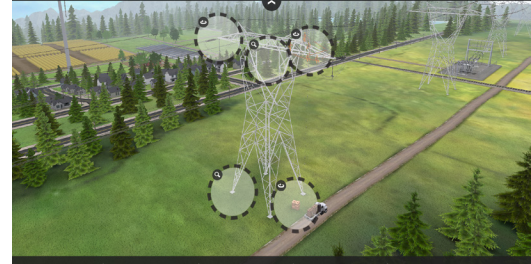
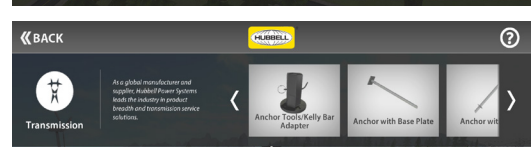
No matter where you are, you can now access and stay connected to the progressive world of Hubbell with our Hubbellville tablet App. With a simple tap and a swipe, you'll unlock and experience immersive, high-quality graphics and exclusive content that excites and educates.

Transport yourself to the top of a transmission tower | Zip between product applications  
Touch to rotate products for 360° detail | Browse product spec sheets



Only available on the Apple iPad v3+





4

EXCLUSIVE CONTENT

5

ROTATIONAL 3D GRAPHICS

Box Pads and Ground Sleeves

Hubbell box pads and ground sleeves are manufactured with Fiberglass Reinforced Composites (FRC) incorporating fiber-reinforced polyester resins for increased structural rigidity. A combination of chopped glass and carbon fiber glass mat reinforcement is added for increased strength.

Variety: Hubbell offers a full line of sizes and configurations to accommodate nearly any OEM or custom application.

Durability: Our manufacturing process creates a smooth exterior on our surface that is fire retardant and UV resistant. The exterior is chemically resistant, fresh with superior weatherability.

Sturdy: Reinforced beams are incorporated into sidewalls and deck supports for greater structural rigidity and integrity.

[LEARN MORE](#)



# PROVIDING

# 3 WAYS TO SAVE

WITH OUR BUSHING PRODUCTS



## PCORE® TEST TERMINALS

- Regular testing allows you to extend the service life of your equipment while lessening the risk of failure and subsequent lost revenue.
- Test Terminals often allow testing to be accomplished without the expense of boom/bucket trucks or extra personnel.
- Test Terminals reduce equipment down-time associated with testing.



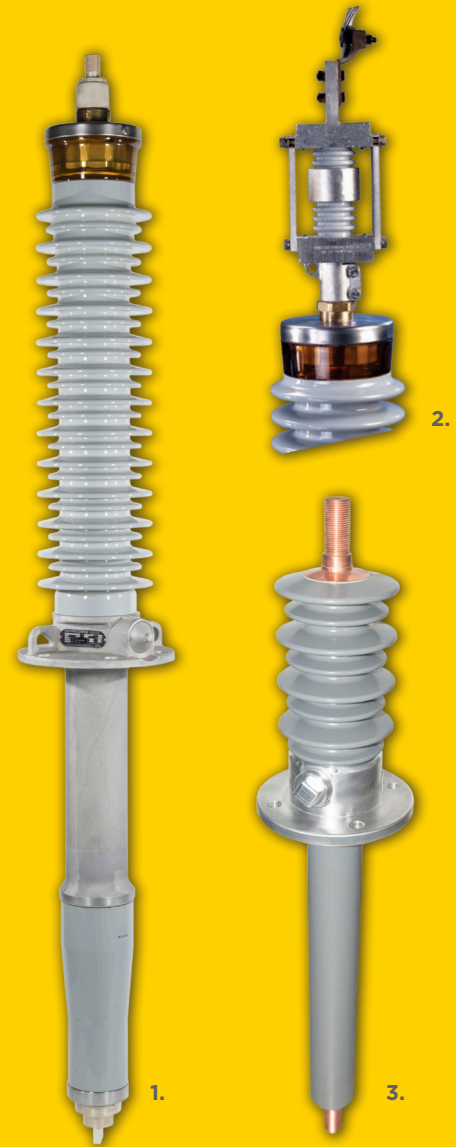
## REPLACEMENT BUSHINGS

- Replacing your old bushings with new ELECTRO COMPOSITE® and PCORE® bushings is an economical way to extend the life of your existing transformer, or oil circuit breaker, for a fraction of what replacing that equipment would cost.



## BUSHING REPAIR

- Many parts on your original bushing can be reused, resulting in savings of up to 60% when compared to the cost of a new bushing.
- When we repair your bushings, they come complete with the same warranty terms as our new bushings!

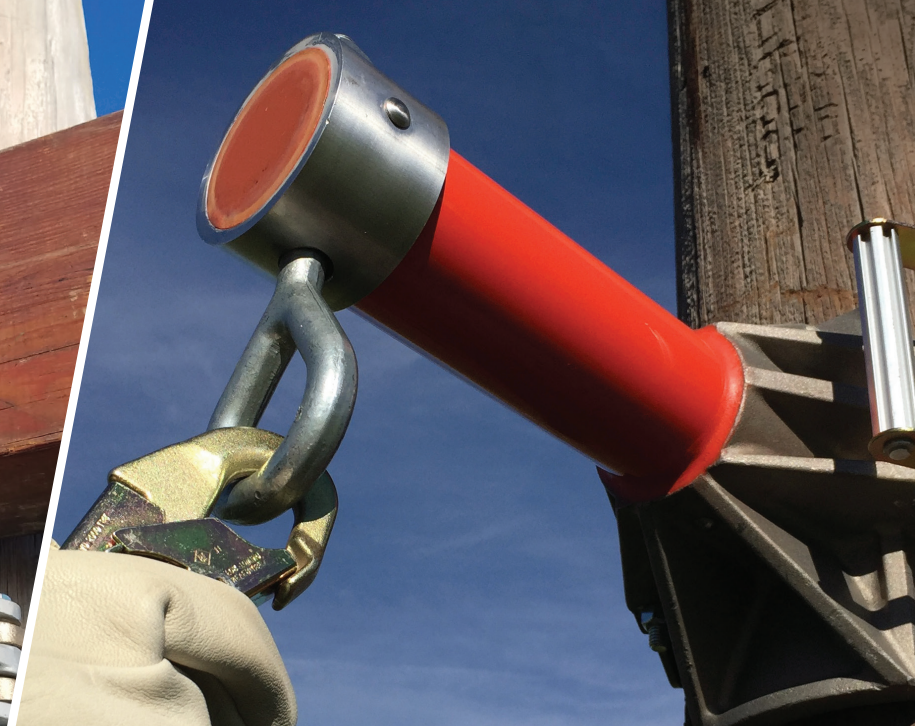


1. PCORE Bushing 2. Test Terminal 3. ELECTRO COMPOSITE Bushing.

The bushing team is always available.  
Contact us if you have any further questions.  
[bushings@hubbell.com](mailto:bushings@hubbell.com)



*Crossarm Change-out Assist Tool*



*Fall Restraint Bracket*

# THE LATEST ADDITIONS



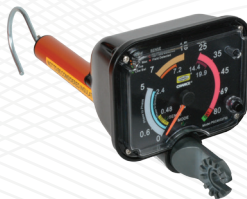
*Proximity Voltage Indicator*



*Portable Load Break Tool 27kV*



*Multi-Range Voltage Indicator*



*Crossarm Link Stick - 3500 lbs.*



# INCREASING THE RELIABILITY OF MAIN ELECTRICAL FEEDERS

## REDUCING THE FREQUENCY AND DURATION OF OUTAGES



### Who:

DORELCO is a rural electric cooperative located in the town of Tolosa, Island of Leyte in the Philippines. They provide electrical service to 13 municipalities throughout a mostly rural area.

### Problem:

With high exposure to densely growing vegetation and wildlife it proved difficult to keep the 13.8kV distribution lines clear of faults. Single-phase lateral circuits that extend to the remote areas are tapped on the main 3-phase feeder line. Any transient or permanent fault on the single-phase lateral lines are almost sure to trip the main feeder breaker causing interruption of electricity to the entire service area. Permanent faults often take several hours to locate and clear.

### Solution:

In its efforts to improve SAIFI and SAIDI, increase customer satisfaction and minimize lost revenues due to faults, DORELCO decided to install its first HUBBELL® Versa-Tech® II recloser on select lateral circuits in 2016. The Versa-Tech® II single phase recloser clears faults well ahead of the main feeder breakers and can automatically reclose the circuit successfully on transient faults. If necessary, the recloser can also keep the permanently faulted lateral circuit isolated until the line crew manually clears the cause of the fault. This is all possible while keeping the other customers on the un-faulted segments energized.



The HUBBELL® Versa-Tech® II



### KEY BENEFITS:

- Improves system reliability
- Easy installation
- Self-powered operation-no external power required
- Fully programmable
- Stand-alone or SCADA-connected operation
- Minimal maintenance, very low cost of ownership
- Environmentally friendly-no oil design
- Cellular, WiFi or radio communication options
- Light weight and compact

### Results:

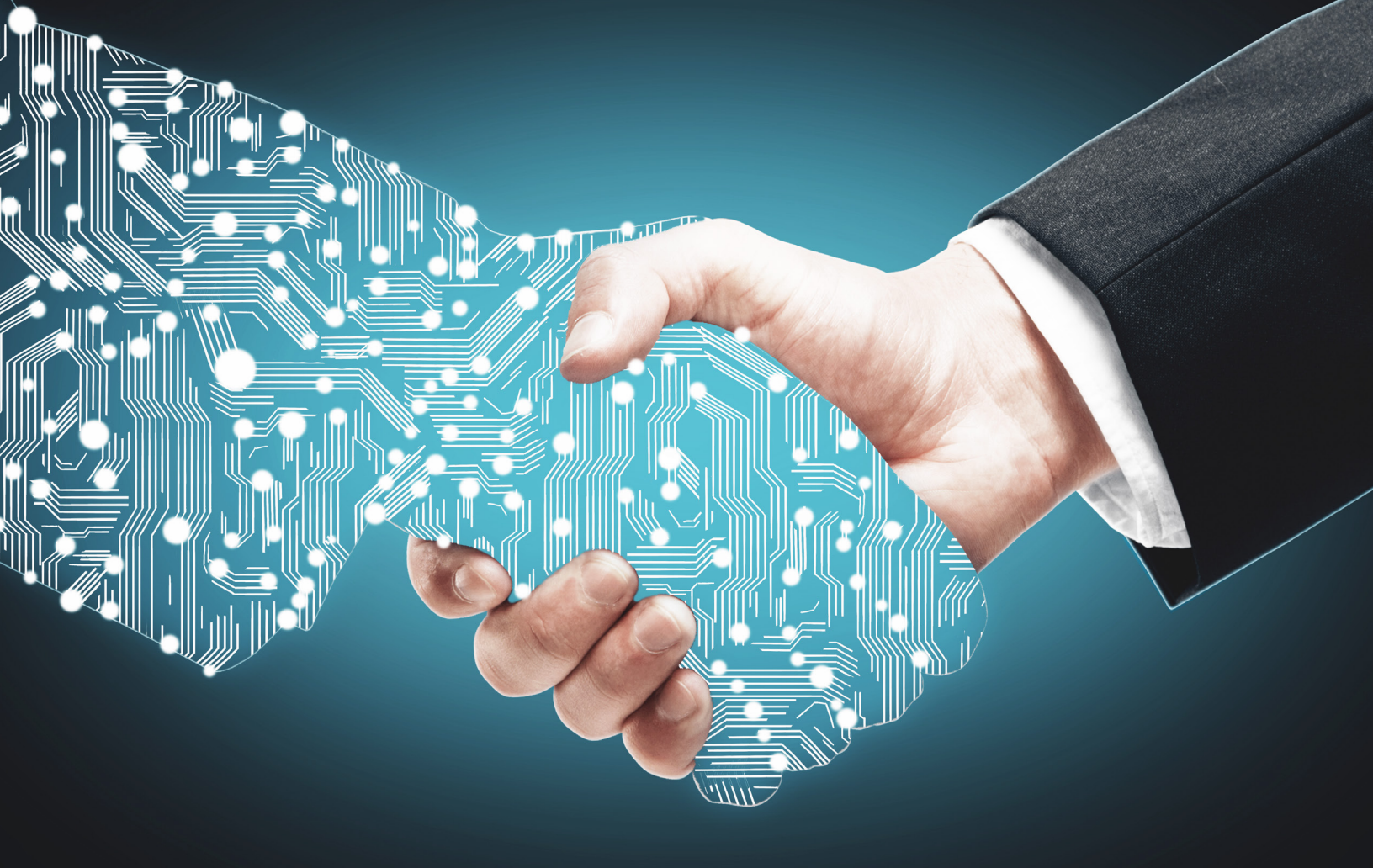
Soon after realizing the benefits, DORELCO decided to continue installing more Versa-Tech® II reclosers on as many lateral lines as possible.

## EASY INSTALLATION AND COMMISSIONING

The line crew found the Versa-Tech II easy to install. The unit is light enough to carry and position while on a bucket truck. The crew mounted the unit using a standard transformer mounting bracket. Settings, final commissioning and verification was easily accomplished using the WiFi connection to the recloser, while an engineer remained at a safe distance.

***To consider installing Hubbell® Versa-Tech® II reclosers in similar applications, contact your local HPS Territory Manager or authorized HPS Distributor.***





# THE RIGHT PARTNER FOR NERC CIP SUPPORT

*Have you registered for the latest RFL® CONNECT  
webinar from Hubbell Power Systems, Inc.?*

*View all of our courses and register at [rfelect.com/training](http://rfelect.com/training).*





# SAFEGUARD YOUR INVESTMENT

## *INTRODUCING THE NEW GS560H WILDLIFE COVER*

To better protect your equipment and lines from the contact of animals, Hubbell Power Systems, Inc. has improved its GS560H design.

### **FEATURES**

Increased height and width to fit a larger range of insulator sizes | Swivel hinge to prevent breaking in cold weather  
Hotstick attachment ears for safer maintenance | Top snap latch for a stronger seal of protection  
Additional cable exit for convenience



*SYSTEMS WITH INTELLIGENCE®*

# THE SILENT WATCHMAN

**Fayetteville Public Works Commission deploys Systems With Intelligence video monitoring solution to reduce the threat of theft and increase reliability at their substations.**

## **BACKGROUND**

The electric service division of Fayetteville Public Works Commission (PWC) has been in operation since 1905. Today, Fayetteville PWC is responsible for delivering power to over 80,000 industrial and residential customers across Cumberland County in North Carolina. They are a generation and distribution utility featuring 32 substations at 69kV and 230kV and a peak load of 490MW

## **MONITORING REQUIREMENTS**

The growing threat of theft and vandalism across electric utility substations concerned Fayetteville PWC. With its large number of unmanned substations, Fayetteville PWC sought to improve the safety and reliability for their employees and customers. The answer was 24/7 monitoring, but finding the right monitoring solution presented its challenges.

The monitoring system had to survive environmental conditions with minimal maintenance. Monitoring remote substations is a challenge for utilities with limited personnel who are also responsible for operating the substation. An alarm security system is also insufficient because utilities want to avoid responding to alarms triggered by authorized substation technicians.

## **THE SOLUTION**

To eliminate the need for continuous monitor video feeds from various substations, Fayetteville PWC employed video analytics that automatically detect unauthorized access to restricted areas and send alarms through DNP3 IP to SCADA. Dispatchers receive real-time data and alerts from the video monitoring system on the same HMI so managing the power system with integrated video is simplified. The dispatchers can check the incoming alarm to see a live video feed of the event that triggered it.





*The PTZ camera allows the operations team to visually scan the substation equipment and surroundings without having to physically be there.*

.....

*Each substation deploys a system of fixed IP-connected cameras to monitor the perimeter and Pan/Tilt/Zoom (PTZ) cameras to cover the inside and provide additional focus and coverage.*

### **THE RIGHT CHOICE**

“A couple of things that Systems with Intelligence does well are processing video pixels in their analytics engine to determine people moving in the substation and having substation hardened equipment that meets both IEEE 1613 and IEC 61850,” said Joel Valley, Manager, Substations and Electric Support Services for Fayetteville PWC. “The digital video system has the ability to talk DNP3 directly into our SCADA system. Alarms get generated right on the dispatcher’s screen from the camera system and the live video feed of the event that triggered it on their SCADA screen, was the real reason for choosing SWI” said Valley.

Fayetteville PWC service technicians regularly visit the substations for maintenance and the operations center did not want to respond to alarms that authorized personnel triggered. “We evaluated four vendors before selecting Systems With Intelligence,” said Valley. “We already had a

system that was not working well and it was going to be superseded.” We met with these vendors at four substations to get a feel for abilities and capabilities on how they would implement their products. One of the vendors involved was Systems With Intelligence who developed a solution that integrates access control to provide us with a coordinated system of substation access and control of alarms across existing SCADA system network.

When the authorized person enters the substation, they swipe a key card to gain access. The key card system is connected to the Digital Video Server (DVS) to disable the system analytics and prevent alarms from being sent to the control center. The analytics are re-enabled either when the service technician swipes the key card again on exit or after a pre-configured time-out period. The key card again on exit or after a pre-configured time-out period. The key card system also allows Fayetteville

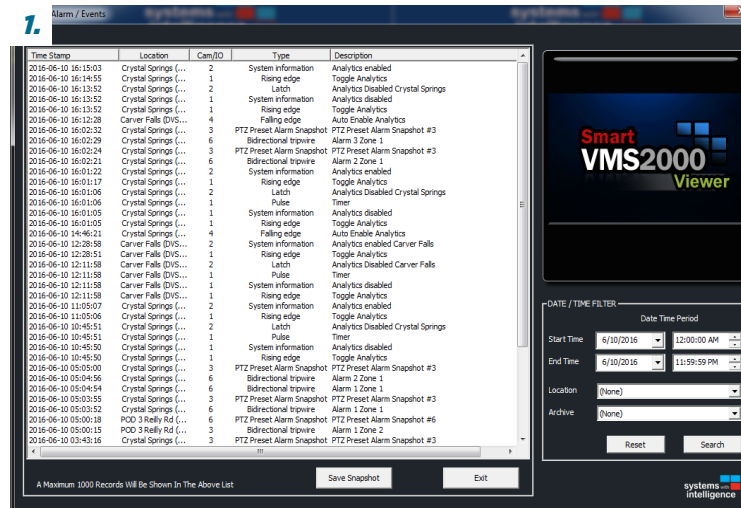
PWC to track who is entering and exiting the substations which is part of the NERC physical security guidelines for access controls. Monthly reports are generated from the key scan system for report ability.

Since each substation has a unique design, a sight layout plan was developed for each installation to optimize the position and focus of each camera. The analytics were programmed on the DVS for each substation to minimize the traffic over the wide area connections. The event video records are downloaded on scheduled off-peak hours to a network storage device in the control center.

### CONTINUED EFFORTS

The Systems With Intelligence equipment met all the requirements in an integrated monitoring solution for Fayetteville PWC. The initial substation was installed and commissioned in 2015, and 31 substations have subsequently been installed. The initial systems have proven successful and the rollouts will continue throughout the second quarter of 2017.

For more information on how Hubbell Power Systems, Inc. can help on your next substation project, contact your Territory Manager.



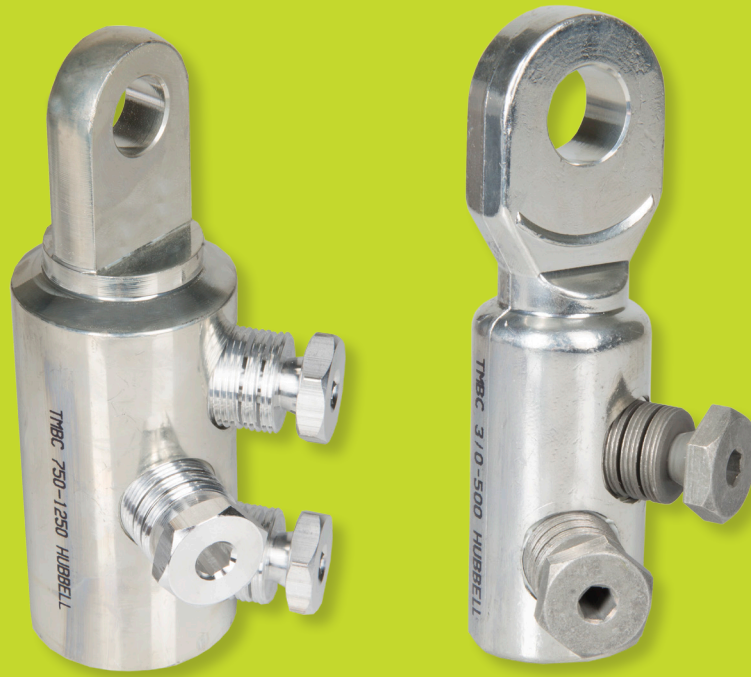
3.

1. The Digital Video Server, (DVS), was installed and programmed with the substation analytics and provided the on-site storage of video and alarms.

2. Fiber systems were run to cameras to eliminate packet loss caused by EMI in the substation.

3. The PTZ cameras can be programmed to automatically scan interior positions but also allow manual control from the control center.

The cameras also have integrated infrared illuminators to allow continuous day and night monitoring.



# 600A SHEAR BOLT CONNECTORS

*REDUCE THE NEED OF A WIDE RANGE OF CONNECTOR SIZES ON THE JOB*

## FEATURES

- No crimping tools or dies are required | Hex head will shear off at the right torque every time
- Can be used on a wide range of conductor sizes | Will work regardless of conductor type (solid, stranded, compact, etc.)
- Four connectors cover #2 AWG through 1250 kcmil sized conductors

Replaces



**625LUGU1**  
lugs

Replaces



**625LUGU2**  
lugs

Replaces



**625LUGU3**  
lugs

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**625LUGU4**  
lugs



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Hubbell TIPS & NEWS is published to inform personnel of electric utilities and associated companies of new ideas and techniques in electric utility and communication practices. The magazine, under different titles and formats, has been published since 1932.

Your suggestions, editorial or photographic contributions are invited and may be submitted to [HPSliterature@hubbell.com](mailto:HPSliterature@hubbell.com).

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VOL. 21 NO. 1 | SUMMER 2017



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DO YOU KNOW SOMEONE WHO IS  
**THE HUBBELL DIFFERENCE?**

*Tell us at [hpsdelivers@hubbell.com](mailto:hpsdelivers@hubbell.com).*

They may grace the cover of a  
future issue of Tips...