

SUBSTATION PHYSICAL SECURITY BEST PRACTICES

April 24-25, 2017
Hilton Baltimore
Baltimore, MD



SPONSORS



EUCI is authorized by IACET to offer 1.0 CEUs for the conference



OVERVIEW

Protecting the nation's electric substations and ensuring a reliable supply of energy are top priorities for the electric power industry. The sheer vastness and in some cases, remoteness, of the infrastructure requires that utilities prioritize facilities that, if damaged, would have the most severe impacts on reliability and the utilities ability to keep the lights on.

EUCI's physical security best practices conference will review preparation, prevention, and resiliency plans for substations and examine the effectiveness of security measures while reviewing the potential impacts to operations and maintenance of these substations. Case studies on intrusions and their responses will be reviewed as well as detailed recommendations for the ultimate perimeter protection of substations.

LEARNING OUTCOMES

- Discuss the tools and methods for conducting vulnerability and threat assessments
- Listen to a plan to mitigate the impact of events by pooling the inventory needs of transmission owning utilities across the country and providing access to a shared pool of spare equipment
- Review how the internet of things can disrupt implementation of new physical security solutions
- Engage in a discussion on who should monitor these substation security systems and how to best do so
- Discuss how security at generation facilities and substations are similar and what can be learned from each
- Review the numerous design considerations that need to be considered for physical security systems for new and existing stations
- List the recovery and lessons learned from an Eco-terrorism event at a Garkane Energy substation
- Review the challenges and lessons learned from incidents at Western Area Power Administration's substations
- Discuss the best practices developed at Xcel Energy for their substations' various applications and systems
- Review a typical security equipment system commissioning process
- List the roles and types of passive and active perimeter security barriers and procedures in an effective holistic approach for physical site security
- Expand on the appropriate methods of deploying sensor cables for the different types of perimeter barriers



“EUCI provides not only best practices but solid tips and benefits for serving our nations electrical grid. With the everchanging landscape of technology and threats, EUCI provides industry leaders knowledge to implement solid solutions to keep you safe.”

Director US Operations, CIAS Security



“Very beneficial to experience real time issues from industry professionals.”

Security Supervisor, Lansing Board of Water & Light

AGENDA

MONDAY, APRIL 24, 2017

- 8:00 – 8:30 am** **Registration and Continental Breakfast**
- 8:30 – 8:40 am** **Welcome Remarks**
- 8:40 – 9:30 am** **CIP-014 Results and EISAC Physical Security Participation**
This discussion will cover industry implementation of CIP-014-2, its challenges and an overview of best practices. We will also discuss the tools and methods for conducting vulnerability and threat assessments. What information to share and the partnership with EISAC will also be reviewed.
Carl Herron, Senior Manager Physical Security Analysis, Electricity Information Sharing and Analysis Center (E-ISAC), NERC
- 9:30 – 10:20 am** **Supporting Grid Resiliency and Restoration Following HILF Events**
Emerging risks of high impact, low frequency events affecting the U.S. bulk electric transmission grid require a pro-active and robust resiliency and recovery plan. The availability of sufficient long lead items such as large power transformers and circuit breakers is an important element to recovery from a large-scale event. Grid Assurance offers an industry-led, cost-effective solution to mitigate the impact of these events by pooling the inventory needs of transmission owning utilities across the country and providing access to a shared pool of spare equipment that can be readily deployed following a qualifying event. This session will provide an update on progress of the Grid Assurance service model and insight into key questions regarding inventory, storage and delivery logistics following an event.
Jeff Fleeman, Chief Operating Officer, Grid Assurance
- 10:20 – 10:50 am** **Networking Break**
- 10:50 – 11:45 am** **How the IoT (Internet of Things) Wants to Ruin Your Life and Disrupt Implementation of New Physical Security Solutions**
In today's world, it can be argued that you can't have cyber security without physical security, however many newly developed physical security solutions require effective cyber security to operate as desired. David Batz will discuss current trends in cyber security including the recent attack on the electric grid in the Ukraine and discuss lessons learned for electric utilities as well as physical security managers.
David Batz, Senior Director, Cyber & Infrastructure Security, Edison Electric Institute
- 11:45 am – 12:45 pm** **Group Luncheon**
- 12:45 – 1:30 pm** **Physical Security in the Cyber World – A Seat at the Security Operation Center Table**
As our systems grow and our security accountabilities increase, we are left with the question of who and how to best monitor these systems. Who is best equipped to know the ramifications of a physical security incident at the wide variety of sites included in the electrical utility footprint and how to convey this real time information to the other participants within the security operation center. As our company transitions to a more pro-active security stance, decisions made today will affect the place our physical security monitors have at the table.
Wayne Sivilar, Corporate Security Manager, Portland General Electric



“Very in-depth, top notch program.”

Facility Planning Engineer, Robert E. Lamb, Inc.

AGENDA

MONDAY, APRIL 24, 2017 (CONTINUED)

1:30 – 2:15 pm

A Baseline Approach to Security at Both Generation Facilities and Substations

This interactive session will discuss the approach for security at Lansing Board of Water and Light with a focus on information exchange and how security at generation facilities and substations are similar.

Ryan Cressman, Supervisor, Security Operations, Lansing Board of Water and Light
Dan Barnes, Supervisor, Security Infrastructure, Lansing Board of Water and Light

2:15 – 3:00 pm

Commissioning a New Security System

After planning, designing and installing a sophisticated physical security system at one or multiple locations, commissioning can often create challenges of its own. This presentation will walk users through a typical security equipment system commissioning process, go over some of the challenges they may face, and discuss methods for mitigating potential hurdles before they arise.

Terry Harless, Senior Physical Security Specialist, Burns & McDonnell

3:00 – 3:30 pm

Networking Break

3:30 – 4:15 pm

Substation Physical Security Design Options

Substation physical security is an incredibly important aspect of the overall reliability of the US electric grid. When designing the physical security system for a new or existing station, there are numerous design considerations that need to be considered. These depend on the overall security posture of the utility, the equipment in the station, the current and ultimate layout of the site, as well as specific environmental and local, municipal and state guidelines and requirements. It is also extremely important to understand the overall objectives of the security system when selecting the types of fence material and detection devices.

Brian Kelley, Senior Manager, Sargent & Lundy

4:15 – 5:00 pm

Garkane Energy's 2016 Buckskin Substation Eco-terrorism Event

A presentation detailing the events, recovery and lessons learned from an Eco-terrorism event that occurred on September 25, 2016 when thousands of Garkane Energy Cooperative members had their electrical power service knocked off line by an individual who shot a 138/69 kV substation transformer multiple times with a high powered rifle, leading to an internal fault within the transformer.

Bryant Shakespear, Planning Engineer, Garkane Energy Cooperative

5:00 – 6:00 pm

Networking Reception



"Great opportunity to network and share best practices."

Communications, Dominion

AGENDA

TUESDAY, APRIL 25, 2017

8:00 – 8:30 am

Continental Breakfast

8:30 – 9:15 am

Lessons Learned from Perimeter Security Incidents and Intrusions

Review the challenges and lessons learned from incidents at Western Area Power Administration's substations with a focus on Liberty Substation. Their suggested security standards and protocols will be reviewed and discussed as well.

Trent Foster, Physical Security, Western Area Power Administration

9:15 – 10:00 am

Lessons Learned and Best Practices for Substation Security

This discussion will review the best practices developed at Xcel Energy for their substations and delve into the lessons learned from implementing various applications and systems. Individual case studies will be reviewed as well as a discussion on the overall corporate substation security plan.

Jeff Imsdahl, CPP, PSP, Director of Security, Xcel Energy

10:00 – 10:30 am

Networking Break

10:30 – 11:15 am

High Security Physical Perimeter Security Planning, Products & Procedures

This presentation outlines the role of passive and active perimeter security barriers and procedures in an effective holistic approach for physical site security, addresses recent developments and innovations with regard to design/build technologies, BIM, Matrix Perimeter Security Solutions Platform, Grounded Impasse; protecting substations, assets and facilities relative to homeland security. Establishing and maintaining the perimeter of a facility or asset is a key component to an effective physical site security program. After defining the anticipated threats, physical security products and procedures can be put into place and implemented to better achieve the protection objectives. Fences, barriers, gates, bollards, and pedestrian and vehicular access control systems establish the perimeter. These products can be integrated with intrusion detection sensors, cameras, lighting, and communication equipment to effectively deter, deny, delay, detect, and respond to threats. Policies can be adopted to address procedural security threats. Recent product developments (with test video clips), design/build technologies, and procedures will be highlighted and discussed, focusing on a holistic approach to physical site security.

Mark B Kirby, Market Manager – Power Utility, Ameristar Perimeter Security USA Inc., an ASSA ABLOY Group brand

11:15 am – 12:00 pm

Detection Sensor Deployment Options for Various Substation Barrier Systems

We will discuss the most appropriate methods of deploying sensor cables for the different types of fences and barriers used to secure the perimeter of substations.

Rod Hurley, North American Sales Manager, Fiber SenSys, Inc.

12:00 pm

Adjournment

INSTRUCTIONAL METHODS

Case studies, PowerPoint presentations, and group discussion will be used in this event.

REQUIREMENTS FOR SUCCESSFUL COMPLETION

Participants must sign in/out each day and be in attendance for the entirety of the conference to be eligible for continuing education credit.

IACET CREDITS



EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the ANSI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

EUCI is authorized by IACET to offer 1.0 CEUs for the conference

REGISTER 3, SEND THE 4TH FREE

Any organization wishing to send multiple attendees to these conferences may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.

EVENT LOCATION

A room block has been reserved at the Hilton Baltimore, 401 W Pratt St, Baltimore, MD 21201, for the nights of April 23-25, 2017. Room rates are \$229 plus applicable tax. Call **1-443-573-8700** for reservations and mention the EUCI event to get the group rate. The cutoff date to receive the group rate is March 23, 2017 but as there are a limited number of rooms available at this rate, the room block may close sooner. ***Please make your reservations early.***



REGISTRATION
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PLEASE SELECT

- SUBSTATION PHYSICAL SECURITY BEST PRACTICES CONFERENCE**
 APRIL 24-25, 2017: US \$1395
 EARLY BIRD on or before APRIL 7, 2017: US \$1195

- I'M SORRY I CANNOT ATTEND, BUT PLEASE EMAIL ME A LINK TO THE CONFERENCE PROCEEDINGS FOR US \$295

How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

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OR Enclosed is a check for \$ _____ to cover _____ registrations.

Substitutions & Cancellations

Your registration may be transferred to a member of your organization up to 24 hours in advance of the event. Cancellations must be received on or before March 24, 2017 in order to be refunded and will be subject to a US \$195.00 processing fee per registrant. No refunds will be made after this date. Cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event. This credit will be good for six months from the cancellation date. In the event of non-attendance, all registration fees will be forfeited. In case of conference cancellation, EUCI's liability is limited to refund of the event registration fee only. For more information regarding administrative policies, such as complaints and refunds, please contact our offices at (201) 871-0474.