

# CyberStrike LIGHTS OUT



## *Practical training for energy sector owners and operators*

The CyberStrike LIGHTS OUT training workshop was designed to enhance the ability of energy sector owners and operators to prepare for a cyber incident impacting industrial control systems. This training offers a hands-on, simulated demonstration of a cyberattack, drawing from elements of the 2015 and 2016 cyber incidents in Ukraine.

This workshop is offered as a virtual event either with live or self-guided online instruction. Participants are guided through a series of exercises that challenge them to defend equipment they routinely encounter within their industrial control systems against a cyberattack. Specifically, participants will achieve the following course objectives:

1. Describe the 2015 and 2016 Ukraine cyber events
2. Reconstruct a cyber event using the cyber Kill Chain
3. Discuss guidance and mitigation concepts
4. Describe the importance of prevention

## Target Audience

This CyberStrike training is tailored to energy sector owner and operator staff who work in the following areas:



Control room operation



Technology personnel



Critical infrastructure protection



Focused technical staff



Energy Management System (EMS) support



Operating personnel



Cybersecurity staff

## *Hands-on Exercises*

The CyberStrike LIGHTS OUT training features live exercises using real equipment and scenarios routinely experienced by utility owners and operators:

- Open-Source Intelligence
- Denial-of-Service
- Passive Machine-in-the-Middle Attack
- Firmware Analysis
- Controlling the Human-Machine Interface
- Bypassing the Human-Machine Interface
- Active Machine-in-the-Middle Attack
- Defender Mitigations

## *Tools Used During Workshop*

- Kali Linux
- Metasploit
- Nmap
- VNC Viewer
- Ettercap
- Wireshark
- Binwalk
- Cabextract



## *Continuing Education Units (CEU)*

CyberStrike is accredited to issue IACET Continuing Education Units (CEU). Trainees will be granted 0.8 CEU upon completion of the LIGHTS OUT training.

For an overview of the CyberStrike portfolio of training workshops, please see the following fact sheet: [CYBERSTRIKE Overview FactSheet](#)



## *For More Information*

Visit [www.inl.gov/cyberstrike](http://www.inl.gov/cyberstrike)

To schedule a training, contact [cyberstrike@inl.gov](mailto:cyberstrike@inl.gov)



## WATCH A VIDEO

[youtube.com/watch?v=ZvMf5eHg89s](https://youtube.com/watch?v=ZvMf5eHg89s)

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