



POWER GRID RESILIENCE

SCALABLE SOLUTIONS FOR PROTECTION, SURVIVABILITY, AND RESPONSE

March 21-23, 2016 • Philadelphia, PA



Caitlin Durkovich

Assistant Secretary
**Homeland Security for
Infrastructure Protection**



F. Edward Goetz

VP & Chief Security Officer
Exelon Corporation



Pamela A. Witmer

Commissioner
**Pennsylvania Public
Utility Commission**



Jeffrey Fuller, CISSP

Director, Cyber & Physical
Security
AES

CHAIRPERSON



William N. Bryan
Former Deputy Assistant
Secretary of Energy,
Infrastructure Security &
Energy Restoration, President
ValueBridge Energy Group

SUPPORTING SECURITY PRIORITIES ACROSS THE ELECTRIC UTILITY SECTOR

- ✓ **RELIABILITY** Concerns and Strategies for Risk Mitigation
- ✓ **ENHANCING** Cyber-Physical Security Integration
- ✓ **BUILDING** Cross-Sector Security Coordination
- ✓ **UNDERSTANDING** the EMP threat
- ✓ Updates on the **NATIONAL TRANSFORMER STRATEGY**
- ✓ **SOLUTIONS** for Reliability and Resilience of Power Infrastructure
- ✓ **UNDERSTANDING THE GAPS:** Navigating the Regulatory Environment
- ✓ **PREDICTING** and Preventing Cascading Failure

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POWER GRID RESILIENCE

March 21-23, 2016 • Philadelphia, PA

Dear Colleague,

Power Grid Resilience was launched three years ago with a simple premise: the notion that the electric power grid, among the critical infrastructure sectors, is uniquely critical to safeguard. The impact of any disabling event on our grid has ripple effects into other critical infrastructure sectors – from emergency services, to communications and transportation systems.

Over the last three years, the risk to energy infrastructure has only grown in scope and complexity - from vulnerabilities to asymmetric threats (such as sabotage, theft, and terrorism) to concerns of extreme earth and space weather, all set within a landscape of an increasingly interconnected and sophisticated physical-cyber architecture. Our theme this year looks at scalable solutions - not just for hardening our electrical transmission & distribution infrastructure, but also increasing their survivability from a disabling event, and building coordinated response capabilities.

I am honored to chair PGR 2016 as we look at some of the most pressing issues facing the American energy community. On behalf of the other members of our advisory board, I invite you to join us this year as we take a deep dive into the latest security strategies, innovative technologies, and strategic planning solutions necessary to balance operational efficiencies with security, regulatory compliance and competing priorities facing today's utility companies.

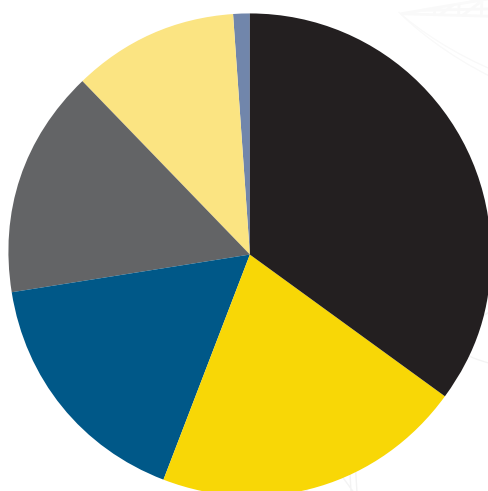
Sincerely,

William Bryan

Chairperson,
Power Grid Resilience 2016

*P.S. Early registration discounts are available
at www.powergridresilience.com or by calling
1-800-882-8684!*

PAST ATTENDEES BY JOB TITLE:



- 32% ASSET MANAGERS
- 19% DIRECTORS
- 15% C-SUITE & PRESIDENT
- 14% ANALYST/ADVISOR
- 10% VICE PRESIDENT
- 10% SENIOR ENGINEER

WHO SHOULD ATTEND?

**CEO's, COO's and CSO's of
Local & Regional Utilities, Vice
Presidents, Directors and Senior
Managers of:**

- ▶ Asset Strategy & Management
- ▶ Business/Operational Continuity
- ▶ Corporate Security
- ▶ Engineering
- ▶ Governance
- ▶ Operations
- ▶ Regulatory Compliance
- ▶ Risk Control/Mitigation
- ▶ Transmission



Other Highlighted Speakers:



**The Honorable
Caitlin Durkovich**
Assistant Secretary
of Homeland Security
for Infrastructure
Protection
*Confirmed pending
DHS approval*

KEYNOTE ADDRESS: Increasing Resiliency in Critical Electrical Infrastructure

In May 2012, President Obama appointed Ms. Caitlin A. Durkovich Assistant Secretary for Infrastructure Protection (IP). In her role, she leads the Department's efforts to strengthen public-private partnerships and coordinate programs to protect the Nation's critical infrastructure, assess and mitigate risk, build resilience, and strengthen incident response and recovery. Ms. Durkovich has advanced the mission to secure and ensure the resiliency of the Nation's infrastructure through a number of milestones and accomplishments since her appointment. She helped lead the implementation of Executive Order (EO) 13636 Improving Critical Infrastructure Cybersecurity and Presidential Policy Directive (PPD)-21 Critical Infrastructure Security and Resilience, leveraging linkages between physical and cyber and focusing on the increasingly complex and interdependent nature of infrastructure. She directed the national effort to update and revise the National Infrastructure Protection Plan in 2013, focusing on the value of partnerships in building a unity of effort to achieve critical infrastructure security and resilience.



F. Edward Goetz
VP & Chief Security
Officer
Exelon Corporation

Session Title: Security Benchmarking for Critical Electrical Infrastructure : How Much Is Enough?

Ed joined Exelon (Constellation Energy) in August 2009 and has responsibility for cyber and physical security across the enterprise. In this capacity, he was a contributing author to the 2011 National Infrastructure Advisory Council (NIAC) Study on Resilience. Prior to joining Exelon, he was the Chief Operating Officer of i2S, Inc., a professional services company whose clients included various agencies within the U.S. Intelligence Community from 2007 – 2009. After two years, he guided i2S through a successful M&A process, culminating in its sale. During his 20-plus-year tenure as an FBI Special Agent, Ed was detailed to the Central Intelligence Agency's (CIA) Counterterrorism Center, where among other counterterrorism operations he led the CIA team in the response to the August 7, 1998, bombing of the U.S. Embassy in Nairobi, Kenya. He was chief of the FBI's Legal Attaché Office in Germany from 2000-2005 and was instrumental in the 9/11 investigation of the Al-Qaeda terrorist cells in Germany. Ed also established and headed the FBI's Baghdad Office in 2005. Upon returning to the United States, he was put in charge of the FBI Baltimore Office's Counterterrorism, Counterintelligence and Cyber Programs. Before retiring, he was the Acting Section Chief of the Office of International Operations, FBI Headquarters, where he had responsibility for all FBI overseas offices.



Pamela A. Witmer
Commissioner
**Pennsylvania Public
Utility Commission**

Session Title: Understanding Cyber/Physical Risks to Utility Infrastructure

Pamela A. Witmer took the oath of office as a Pennsylvania Public Utility Commissioner on June 30, 2011. She was nominated to serve as Commissioner by Gov. Tom Corbett on June 7, 2011, and unanimously confirmed by the Senate on June 27, 2011. In February 2015, she was asked to serve on the Advisory Council for the North American Energy Standards Board. Witmer was also appointed to serve on the Communications Security, Reliability and Interoperability Council of the Federal Communications Commission and currently serves as an Eastern Interconnection States' Planning Council representative to the Eastern Interconnection Planning Council's Stakeholder Steering Committee.



Jeffrey Fuller, CISSP
Director, Cyber &
Physical Security
AES

Session Title: Substation Security Benchmarking

Mr. Fuller directs the Infrastructure Security Team for AES, including cyber security activities, physical security activities, contract security, security incident response plans, risk assessments, auditing activities and automation management while concentrating on strategic developments at Dayton Power and Light, Indianapolis Power and Light and 15 other business locations in the US. Designed and implemented internal and external cyber and physical policy and procedures to exceed the requirements for the NERC Critical Infrastructure Protection (CIP) Standards as well as various federal and industry (SOX and PCI) compliance requirements.



Emanuel Bernabeu,
Ph.D.
Manager, Applied
Solutions
PJM Interconnection

Session Title: Defining the Risks and Vulnerabilities to Critical Infrastructure

PJM is a regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of 13 states and the District of Columbia.



Chris Beck
VP for Policy and
Strategic Initiatives
**Electric Infrastructure
Security (EIS) Council**

Session Title: Emerging Threats : Black Sky Hazards & Best Practices for Grid Resilience

Dr. Beck is a technical and policy expert in several homeland security and national defense related areas including critical infrastructure protection, cybersecurity, science and technology development, WMD prevention and protection, and emerging threat identification and mitigation.



Dr. Erfan Ibrahim
Director, Cyber-
Physical Systems
Security & Resilience
**National Renewable
Energy Laboratory**

Session Title: Addressing Cyber-Physical Systems Security Challenges from Distributed Generation

In this cross-cutting role Dr. Ibrahim is collaborating across NREL's Science & Technology programs as well as other national labs, State & Federal Agencies, utilities, vendors, academia, integrators and individual subject matter experts to develop cyber-physical systems security testing methodologies and resilience best practices that will enable the safe and reliable integration of large scale Distributed Energy Resources onto the nation's electric grid.



0800 **Registration**

0845 **Chairperson Welcome and Opening Remarks**

0900 **KEYNOTE: Increasing Resiliency in Critical Electrical Systems**

- ▶ Leveraging Technological Innovation
- ▶ Understanding the Impacts of Cascading Failures
- ▶ Minimizing Impact of High Consequence Events



Dr. Jalal Mapar, Director, Resilient Systems Division, **U.S. Department of Homeland Security**

0945 **Morning Networking & Refreshment Break**

1015 **TECH ACCELERATOR A: Using R&D to Mitigate Risk in the Electric Power Industry**

In order to maximize the effectiveness of risk mitigation, research and development must support understanding the exposure to high consequence events. In this workshop we will look at:

- ▶ Analyzing/ Reducing Risk Through R&D
- ▶ Technology R&D Planning
- ▶ Technology Challenges and Opportunities for the Industry



Dr. Erfan Ibrahim, Director, Cyber-Physical Systems Security & Resilience, **National Renewable Energy Laboratory**

1145 **Lunch**

1245 **Mitigating the Consequences of High Impact/Low Frequency Events**

- ▶ The evolving security landscape
- ▶ Understanding the risks
- ▶ Balancing probability and liability



Mark Weatherford, Security Strategy Expert & former Deputy Under Secretary of Homeland Security for Cybersecurity, **The Chertoff Group**

1330 **TECH ACCELERATOR B: Physical Security Initiatives, Technologies, and Evolving Trends**

Essential physical assets such as substations and control centers present complex physical security challenges associated with common points of failure and cascade effects from a single event. In this workshop we will look at:

- ▶ Physical Security Perimeters
- ▶ Systems Management
- ▶ Access Control
- ▶ Incident Response

1445 **Afternoon Networking Break**

1515 **TECH ACCELERATOR C: Security Strategy and Technology Solutions**

Emerging technologies and security strategies can offer cost-effective increased effectiveness to existing security infrastructure or procedural security measures. In this workshop we will examine:

- ▶ Surveying Security Policies
- ▶ T-Line Corridor and Transmission Infrastructure Challenges
- ▶ Hardening Essential Physical Assets

1630 **Closing Remarks**

1645 **End of Tech Accelerator Workshop Day**



Tuesday, March 22, 2016



0800 **Registration & Coffee**

0845 **Chairperson's Welcome and Opening Remarks**

0900 **KEYNOTE: Requirements to Protect Critical Electrical Infrastructure**

- ▶ Developing situational awareness capability to address functionality of electrical infrastructure
- ▶ Understanding the cascading consequences of infrastructure failures
- ▶ Growing and maturing the public-private partnership



The Honorable Caitlin Durkovich, Assistant Secretary for Infrastructure Protection, **Department of Homeland Security**

0945 **Requirements to Ensure a Robust Transmission and Distribution System**

- ▶ Being Responsive and Proactive
- ▶ Microgrid strategies
- ▶ Experience from the field



David Roop, Director - Electric Transmission, **Dominion Virginia Power**

1030 **Demo Drive / Morning Networking & Refreshment**

1145 **Emerging Threats: Black Sky Hazards and Best Practices for Grid Resilience**

- ▶ Understanding the threat
- ▶ Identifying and protecting critical infrastructure
- ▶ Assessing critical vulnerabilities



Dr. Chris Beck, Vice President for Policy and Strategic Initiatives, **Electric Infrastructure Security (EIS) Council**

1230 **Networking Luncheon**

1330 **National Transformer Strategy Update**

- ▶ Preparation for and rapid recovery from a high-impact, low-frequency (HILF) event
- ▶ Emergency spares program
- ▶ Risks associated with EHV transformers

1415 **Speakers' Roundtable Discussion**

A roundtable discussion highlighting issues discussed in Main Day One, moderated by PGR 2016 Chairperson. Topics include:

- ▶ Threats to Critical Facilities
- ▶ Transformer Strategy
- ▶ Black Sky hazards



Moderator: **William Bryan**, Chairperson, **Power Grid Resilience 2016**

1500 **Afternoon Networking & Refreshment Break**

1545 **PANEL: CIP 14-1: How Much Security Is Enough?**

- ▶ Benchmarking security best-practices
- ▶ Identifying and protecting key transmission infrastructure
- ▶ Assessing critical node sites



F. Edard Goetz, Vice President & Chief Security Officer, **Exelon Corporation**



Jeffrey Fuller, **CISSP**, Director, Cyber & Physical Security, **AES**



Dave Allan, Supervisor, Corporate Security, **PNM Resources, Inc.**

1645 **Closing Remarks**

1700 **Cocktail Reception**



0800 **Registration & Coffee**

0845 **Chairperson's Recap of Conference Day One**

0900 **KEYNOTE:** Improving the Security and Resilience of the Nation's Grid

- ▶ The state of the grid
- ▶ Reducing costs and improving efficiency
- ▶ Technology gaps

0945 **Evaluating Threats to Critical Facilities**

- ▶ Leveraging Technological Innovation
- ▶ Understanding the Impacts of Cascading Failures
- ▶ Minimizing Impact of High Consequence Events



Emanuel Bernabeu Ph.D., Manager, Applied Solutions, **PJM Interconnection**

1030 **Morning Networking & Refreshment Break**

1115 **Understanding the Gaps: Cyber/Physical Threats to Utility Infrastructure**

- ▶ Compliance Challenges
- ▶ Identifying Critical Infrastructure Vulnerabilities
- ▶ Strategies for Response the High Consequence Events



Pamela A. Witmer, Commissioner, **Pennsylvania Public Utility Commission**

1200 **ROUNDTABLE SESSIONS**

1. Improving Recovery Time from a Disabling Event
2. Physical Security Monitoring Technologies
3. Understanding the Insider Threat
4. Assessing Physical Security Impact of a Cyber Attack

1245 **Networking Luncheon**

1345 **PANEL: Strategies for Assessing Risk to Substations**

- ▶ Weighing probability against liability
- ▶ Substation threat landscape: not all targets are equal
- ▶ Effective strategies for physical security



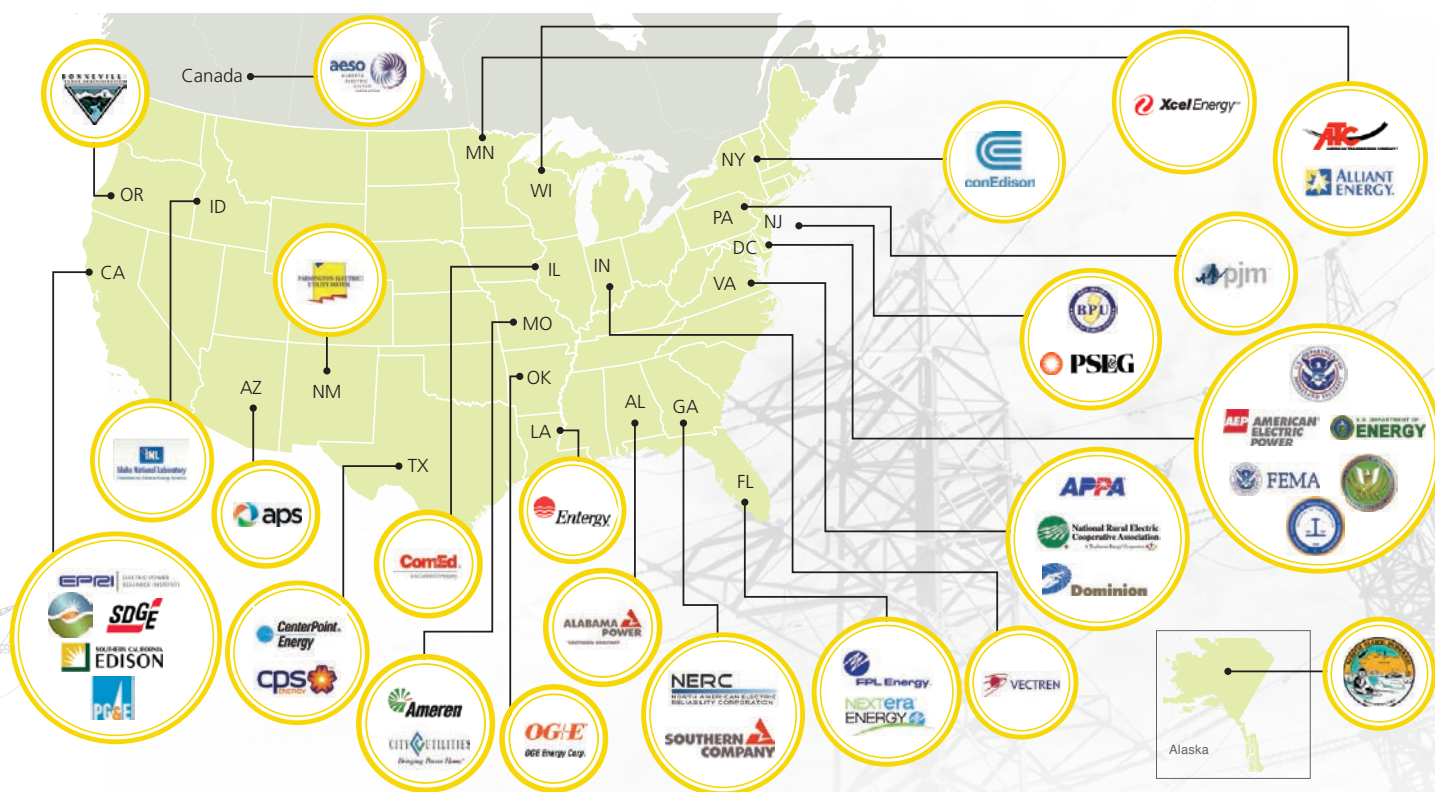
Brian Harrell, CPP, Director, Energy Practice, **Navigant**

1430 **Repair/Restore: A Pragmatic Approach to
Balancing Preparedness vs Resiliency**

- ▶ Cost effective hazard mitigation
- ▶ Response challenges
- ▶ Security investment strategies

1515 **Closing Remarks**1530 **End of Main Conference Day Two**

Who Attends Power Grid Resilience?





PRICING & REGISTRATION



End User: Utilities, Government, Non-Profit and Academia

Package	Register & Pay By February 5	Standard Price
2 Day Main Summit	\$1,095	\$1,495
All Access	\$1,395	\$1,795
Workshop Day	\$645	

Vendors, Consultants, and Solution Providers

Package	Register & Pay By February 5	Standard Price
2 Day Main Summit	\$2,795	\$3,195
All Access	\$3,195	\$3,595
Workshop Day	\$645	

Team Discounts

Number of Attendees	Savings
Group of 3	10%
Group of 4	15%
Groups of 5 or more	25%

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Email: enquiryiqpc@iqpc.com

Phone: 1-800-882-8684

Fax: 646-378-6025

Mail: IQPC
535 5th Avenue, 8th Floor
New York, NY 10017

Location & Lodging Information



The **4th Power Grid Resilience summit** will be held in Philadelphia, PA. Once a specific venue has been confirmed, this information will be available on the website. If you would like to be notified once this has been finalized, email us at idga@idga.org with the following subject line **"Power Grid Resilience – Venue Request"**.

Sponsorship & Exhibition Opportunities

Event sponsorship is an excellent opportunity for your company to showcase its products and services to senior level, targeted decision makers attending the 4th Power Grid Resilience Summit. For more information on sponsoring or exhibiting at this year's conference, please contact Chelsea Grant at 212-885-2664 or email her at Chelsea.Grant@iqpc.com.

