



## **NASEO State and Federal Comprehensive Energy Security Planning Initiatives**

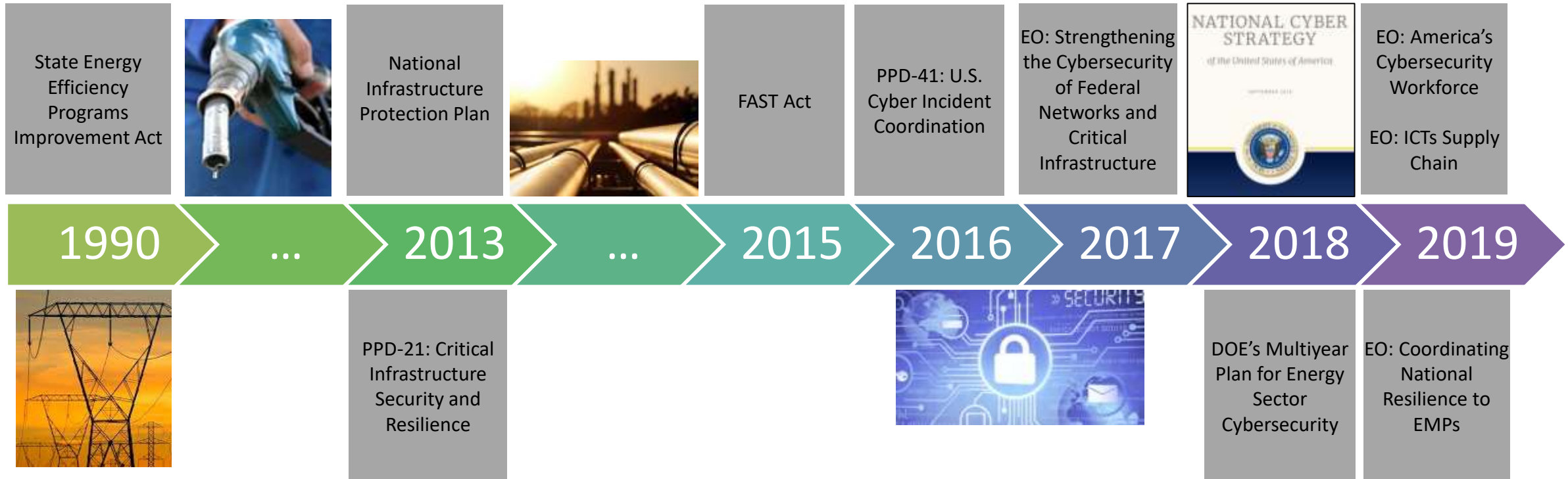
**Brandi Martin, State Engagement**

Office of Cybersecurity, Energy Security and Emergency Response (CESER)

U.S. Department of Energy

September 17, 2019

# DOE Foundation for Sector Engagement



# CESER's Mission

Cybersecurity, Energy Security, and Emergency Response (CESER) leads the Department of Energy's emergency preparedness and coordinated response to disruptions to the energy sector, including physical and cyber-attacks, natural disasters, and man-made events.



# CESER Collaboration Across the Energy Sector

## State, Local, Tribal and Territorial (SLTT) Program



### Who

- Electricity trade associations and their members

### Purpose

- Coordinate efforts to prepare for, and respond to, national-level disasters or threats to critical infrastructure.

### Working Groups

- Vision and Planning
- Threat Information Sharing
- Industry-Government Coordination
- Research & Development
- Cross-Sector Liaisons

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### Who

- Oil & natural gas trade associations and their members

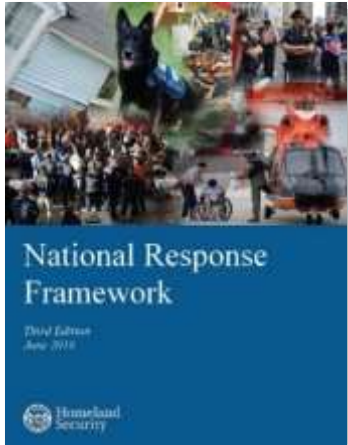
### Purpose

- Provide a forum to coordinate security strategies, activities, policy and communications across the sector to support the nation's security mission

### Working Groups

- Cyber
- Information Sharing
- Regulatory Engagement
- Emergency Management
- Law Enforcement Engagement
- Pipeline

# What is Emergency Support Function (ESF) #12?



ESFs are part of FEMA's National Response Framework

- How the Nation responds to disasters and emergencies
- Built on the National Incident Management System
- Scalable, flexible, and adaptable coordination structures



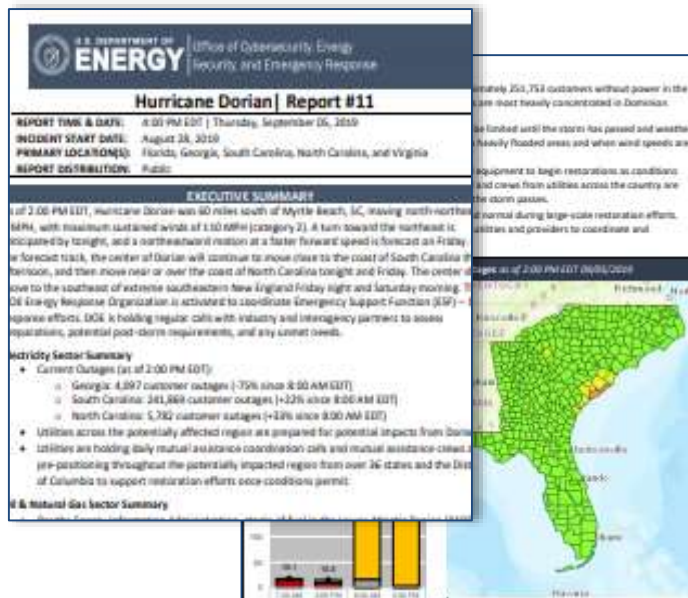
## Emergency Support Functions

- ESF1 Transportation
- ESF2 Communications
- ESF3 Public Works & Engineering
- ESF4 Firefighting
- ESF5 Emergency Management
- ESF6 Mass Care, Housing & Human Services
- ESF7 Resources Support
- ESF8 Public Health & Medical Services
- ESF9 Urban Search & Rescue
- ESF10 Oil & Hazardous Materials Response
- ESF11 Agriculture & Natural Resources
- **ESF12 Energy**
- ESF13 Public Safety & Security
- ESF14 Long-term Community Recovery & Mitigation
- ESF15 External Affairs

# ESF #12 DOE Functions

## Activities

- Situational Awareness
- Damage Assessments
- Restoration Priorities
- Mutual Aid Support
- Unity of Message
- Regulatory Relief Assistance
- Interdependency Analysis
- Cascading Impact Analysis

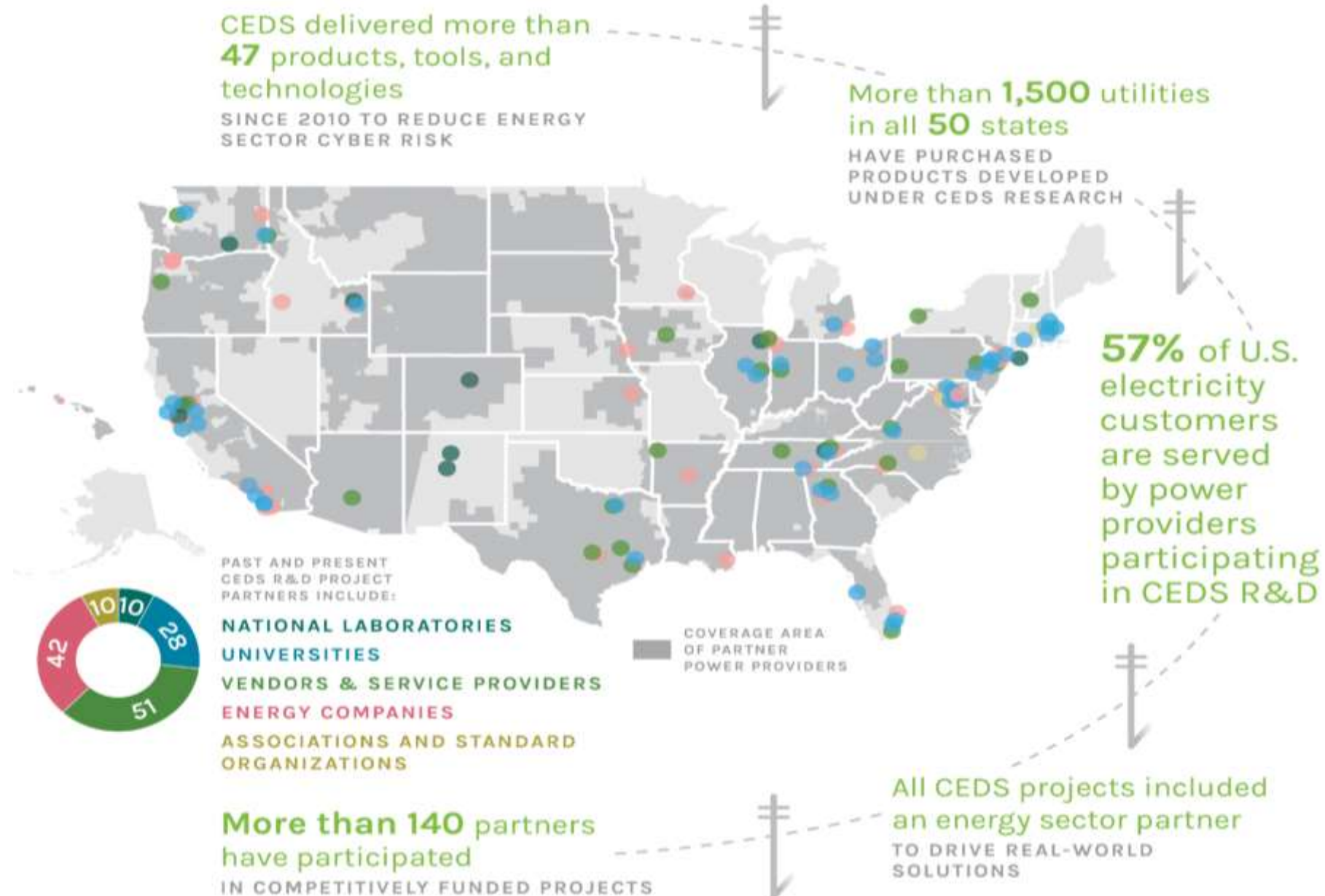


## Coordination



# CESER R&D Reach and Impact

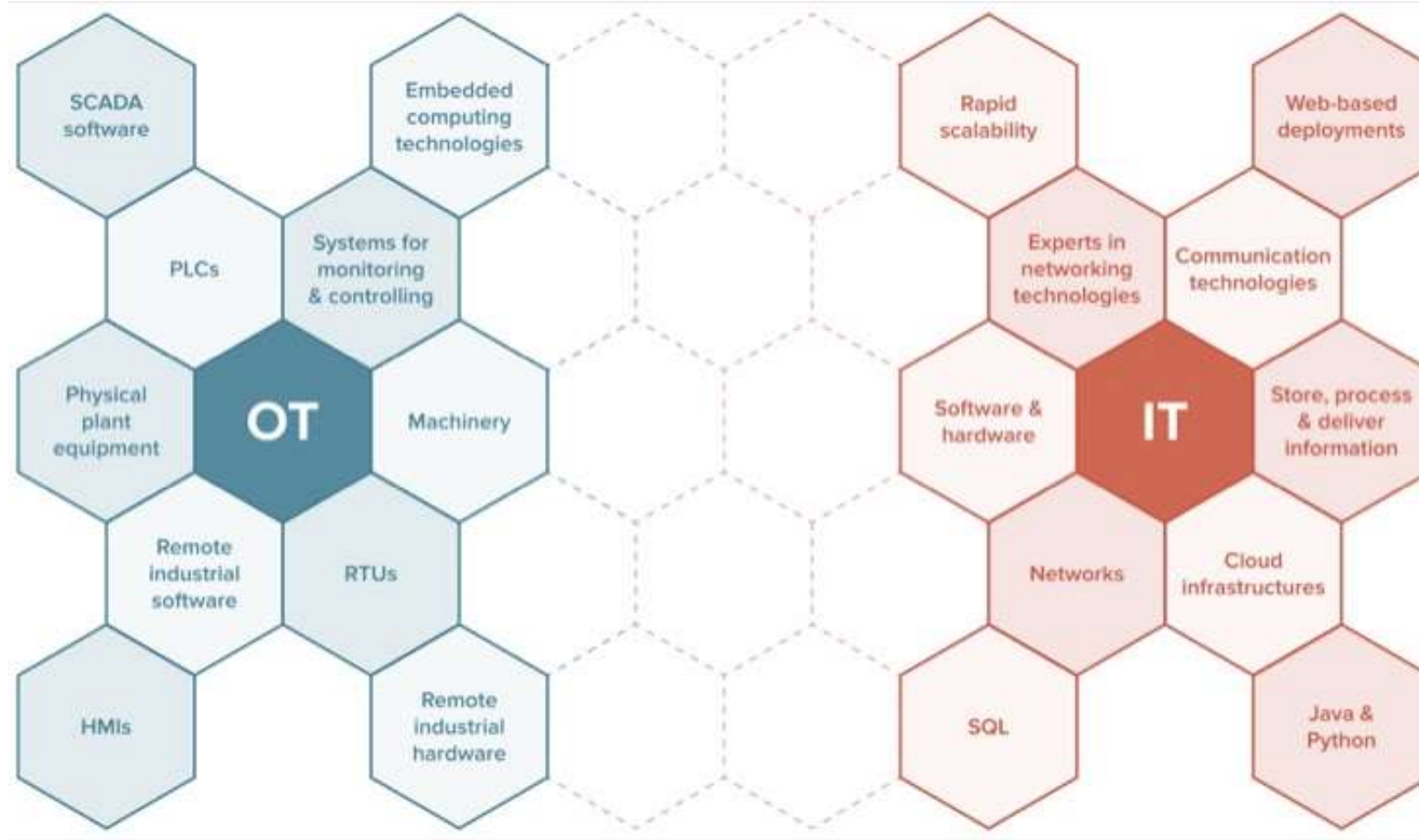
- **Funds earlier, high-risk/high-reward R&D** in areas critical for national security where a business case cannot readily be established by a private-sector company
- **Builds R&D pipeline through partnerships** with energy sector utilities, vendors and service providers, universities, and national laboratories



# Cyber Landscape in Energy Sector

## Operational Technology Network

## Information Technology Network



Source: IEB Media Industrial Ethernet Book



# Cybersecurity and the Energy Sector

**There's been a sevenfold increase in cyberattacks in the last seven years on systems that run critical infrastructure, like generation plants.**

**Eddie Habibi**  
CEO of cybersecurity firm PAS



Bloomberg Environment

*Duke Energy, one of the largest power companies in the nation serving 7.6 million customers reported more than 650 million attempted cyberattacks in 2017*

Louisiana Governor Declares State of Emergency After Ransomware Hits School Systems

Forbes · Jul 26



Ransomware attack leaves Johannesburg residents without electricity

U.S. News & World Report · Last month



**Report: Two-thirds of ransomware attacks in 2019 targeted state and local governments**

StateScoop · Last month

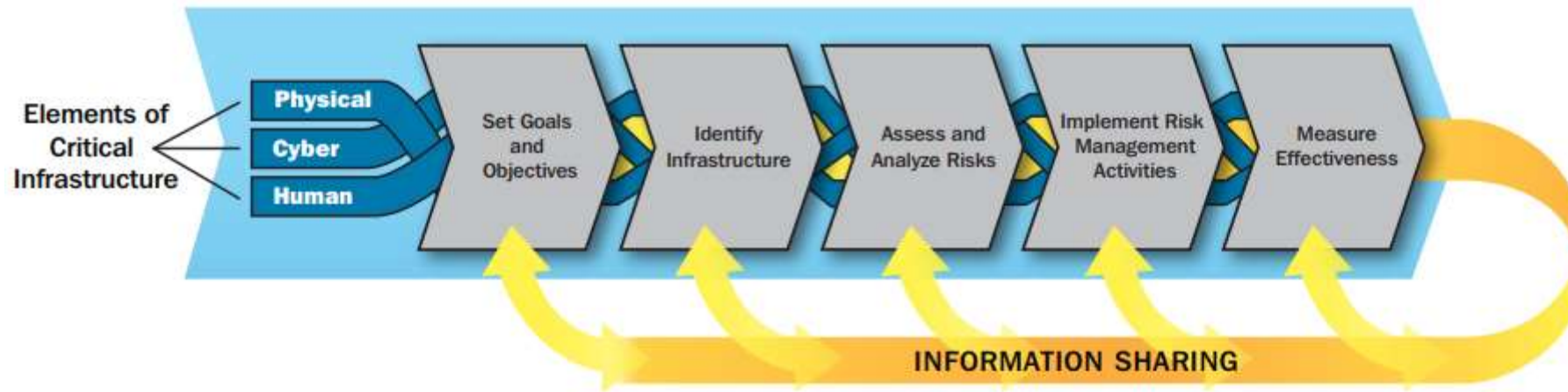


*"In an average day, WAPA's firewalls are pinged nearly 200,000 times by suspicious or potentially damaging events," Mark Gabriel, administrator and CEO of Western Area Power Administration (WAPA)*

# Cybersecurity Guidance for States

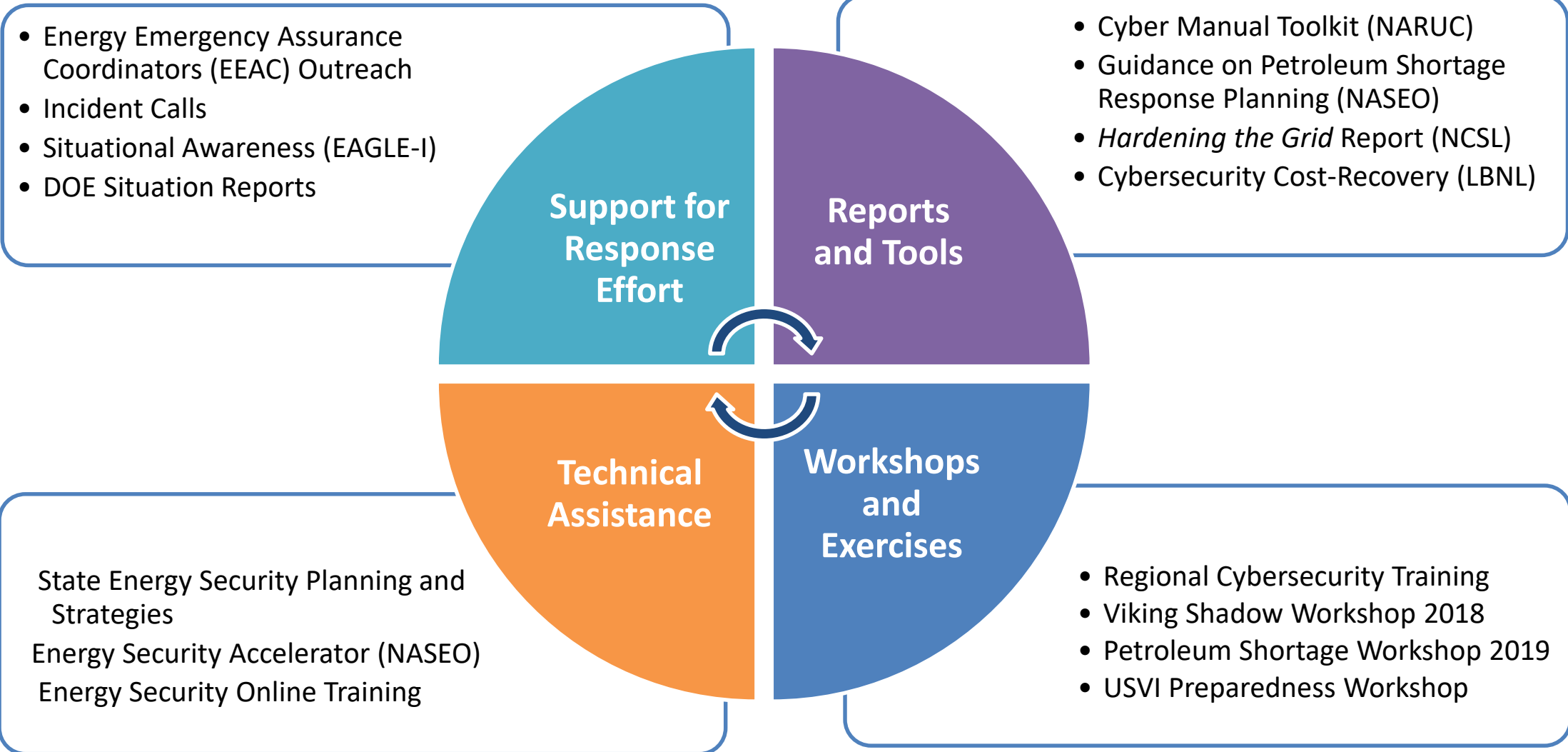
- Consider cybersecurity in all-hazard energy security planning

## Critical Infrastructure Risk Management Framework



Source: DHS NIPP CI Risk Management Framework

# State Energy Security Preparedness and Response



# Upcoming Projects



## Energy Security Online Training

**Goal:** Develop online training modules focused on the foundational components of energy security planning

### Objectives

- Build upon existing materials for Energy Assurance partners
- Institutionalize the fundamentals of energy security planning with a user friendly online training platform



## Energy Security Capabilities and Maturity Model

**Goal:** Create a repeatable process for conducting holistic, all-hazards SLTT energy security planning

### Objectives

- Identify specific capabilities required for achieving a secure energy system
- Outline common metrics for evaluating progress
- Identify and disseminate resources, tools and expertise needed to support successful completion of complex tasks and advance energy security planning

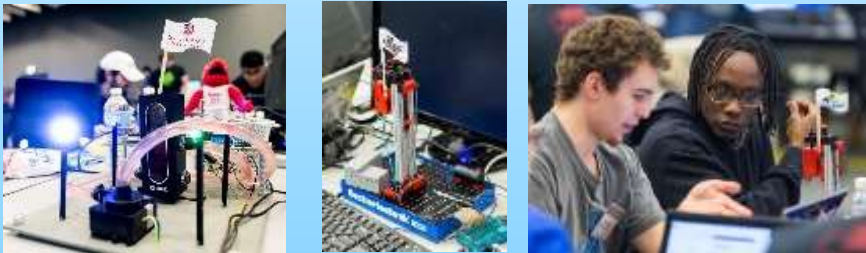


# Upcoming Opportunities



November 15-16<sup>th</sup>

- ▶ DOE's annual collegiate cyber defense competition
- ▶ Student teams defend simulated cyber-physical infrastructure against professional red-team attackers
- ▶ Hosted in collaboration with DOE's National Laboratories



<https://cyberforcecompetition.com/>

## NERC's Grid Security Exercise (GridEx)

November 13-14<sup>th</sup>



**GridEx V**  
GRID SECURITY EXERCISE 2019



**NGA**  
NATIONAL GOVERNORS ASSOCIATION

REQUEST FOR APPLICATIONS

Workshop and Technical Assistance to Apply  
Lessons Learned from the GridEx V Exercise

*Applications Due: Thursday, October 3<sup>rd</sup>*

# CESER State Engagement Contacts



**Kate Marks**

Sector Engagement Lead

[Kate.Marks@hq.doe.gov](mailto:Kate.Marks@hq.doe.gov)

202-586-9842



**Brandi Martin**

Sector Engagement

[Brandi.Martin@hq.doe.gov](mailto:Brandi.Martin@hq.doe.gov)

202-586-7983