Online Training Overview
Energy Security and Data Analysis Workshop

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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.
State Energy Security Preparedness and Response

- Energy Emergency Assurance Coordinators (EEAC) Outreach
- Incident Calls
- Situational Awareness (EAGLE-I)
- DOE Situation Reports

- Cybersecurity guidance
- Coordination & Info Sharing (NGA)
- Energy Security Assessment (ANL)
- Updated State Risk Profiles
- Tribal Security Primer (NCSL)

- State Energy Security Planning and Strategies
- Energy Security Accelerator (NASEO)
- Energy Security Online Training

- Western Petroleum Shortage Collaboration (NEMA-NASEO)
- Puerto Rico Preparedness Workshop
- Regional Cybersecurity Training

Support for Response Effort

Reports and Tools

Technical Assistance

Workshops and Exercises
State 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 readily available and accessible online training platform
Introduction Video
Energy Security Online Training

**Target Audiences**

**Primary**
- State Energy Offices
- Public Utility Commissions

**Secondary**
- Governor’s Energy Advisor
- State Legislative Staff (Energy)
- Emergency Manager

**Tertiary**
- State Legislator
- Governor
- Cyber Security Advisor
- State ESF-12 Responder
- Federal Partners/Support Agencies
- Local Government (Energy or Emergency Management)
- Energy Private Sector

**Module 1**
- **Awareness**
  - Audience: Primary, Secondary & Tertiary
  - Delivery: Online

**Module 2**
- **Fundamentals**
  - Audience: Primary, Secondary & Tertiary
  - Delivery: Online

**Module 3**
- **Advanced Tools**
  - Audience: Primary
  - Delivery: In State, Workshops, Exercises, On-the-job training

**Data, Analysis, and Planning**
- Audience: Primary
- Delivery: Online; resources
1) Energy Security Awareness (Why)
   • Energy Security Planning, Response, and Preparedness Activities
   • Roles and Responsibilities
   • Overview of Typical Energy Security Planning Activities (Job Elements, KSAs – Knowledge, Skillsets and Abilities)

2) Energy Security Fundamentals (What)
   • Roles, Responsibilities and Authorities Specific to the Energy Security Planning
   • Understanding the Preparedness Cycle
   • Energy Security Framework
     - Engage the Community
     - Assess the Energy Security Landscape
     - Analyze Risk and Resilience
     - Develop the Energy Security Strategy
     - Strategy Implementation
     - Evaluate Progress
     - Adapt and Enhance
   • Stages of an Energy Emergency

3) Energy Security Data, Analysis, & Planning (How)
   • Data Analysis – Data sources, monitoring, and interpretation methods and tools
   • Preparing and Updating an Energy Assurance/Security Plan (“How to”)
   • Fuel Contingency Planning
   • Cyber Security Planning and Preparedness

4) Advanced Energy Security Tools (State Specific)
   • Understanding State’s Energy Profile and Risks
   • Preparing and Updating an Energy Assurance/Security Plan (“In your state”)
   • Preparing and Updating a Fuel Plan in your State
   • Reporting and Exercises
   • Event Mitigation
   • Public Assistance
How Can You Help?

We want to hear from you! Please share with us:

- Good practices in energy security planning
- Examples and/or case studies that support energy security

We are conducting informal interviews during the workshop and via phone later this week.

If you would like to contribute, contact Brandi Martin or Nicole Zawadzki

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Energy Security Capabilities Framework

**Goal:** Create a repeatable process for conducting holistic, all-hazards State, Local, Tribal, Territorial (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
Energy Security Capabilities

18 Capabilities: Skills or tasks required to effectively complete the strategic process

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**Team Building & Assessment**
- Engage the Community
- Assess the Energy Security Landscape
- Analyze Risk and Resilience

**Planning and Implementation**
- Develop the Energy Security Strategy
- Strategy Implementation

**Evaluation & Enhancement**
- Evaluate Progress
- Adapt and Enhance
## Capabilities Self-Assessment

### Phase 3: Analyze Risk and Security

Conduct analysis of the threats and hazards facing energy infrastructure, the ability of existing energy systems to withstand potential stresses, and the potential consequences of system disruptions.

<table>
<thead>
<tr>
<th>Capability</th>
<th>Capability Definition</th>
<th>Target Area</th>
<th>Capability Maturity Objective</th>
<th>Assessment Score</th>
<th>Responsible Person / Entity</th>
<th>Key Observations</th>
<th>Areas for Programmatic Improvements</th>
<th>Assessment Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Threat and hazard identification</strong></td>
<td>Identify and analyze threats and hazards facing energy infrastructure</td>
<td>Energy Disruption Data</td>
<td>Most or all historic data on energy disruptions identified and catalogued by threat or hazard</td>
<td>2</td>
<td>State Energy Office</td>
<td>Most disruption data is collected and catalogued in a protected database.</td>
<td></td>
<td>CYBERSECURITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Risk Assessment</td>
<td>Risk assessment conducted for most or all energy infrastructure that evaluates all natural, technological, and human-caused threats and hazards to energy infrastructure and prioritizes assets, systems, networks, and functions</td>
<td>2</td>
<td>State Energy Office</td>
<td>Individual risk assessments conducted by companies. No private-public sharing of risk assessments and no assessment conducted across all providers.</td>
<td></td>
<td>Public Power Cybersecurity Scorecard (APPF)</td>
</tr>
<tr>
<td><strong>Interdependency analysis</strong></td>
<td>Analyze energy sector reliability and resilience risks posed by interdependent infrastructure systems, including the potential for disruptions to cascade between infrastructure systems</td>
<td>Identify Interdependencies</td>
<td>Identify most or all interdependencies for critical energy infrastructure.</td>
<td>3</td>
<td>State Homeland Security Office</td>
<td>Interdependency analysis used for all homeland security/management plans.</td>
<td></td>
<td>2.5</td>
</tr>
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<td></td>
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<td>Stakeholder Engagement</td>
<td>Establish coordination mechanisms for cross-sector risk engagement between critical infrastructure owners and operators as well as government officials</td>
<td>2</td>
<td>State Homeland Security Office</td>
<td>Critical infrastructure advisory committee established with representatives from multiple critical infrastructure sectors.</td>
<td></td>
<td>ENERGY ASSURANCE GUIDELINES (NASEO)</td>
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</tbody>
</table>
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

Coordination
- Regulatory Relief Assistance
- Interdependency Analysis
- Cascading Impact Analysis

Diagram:
- ESF-12 / ERO
- FEMA Regions
- ESFs
- Energy Owners & Operators
- States
- Media
- Foreign Partners
- Energy Associations / Commissions
- Other SSAs
Energy 101 Online Training

**Goal:** Develop online training modules for the ESF#12 and State, Local, Tribal and Territorial community covering the basic principles that govern the energy sectors

**Objectives:**
- Fundamentals of electricity and the interdependent infrastructure it supports
- Understand the oil and natural gas energy systems including basic fuel supply chain information
- Interdependencies among electricity, oil, natural gas and fuel and the infrastructure energy supports
Questions