Policy Council Meeting Agenda

March Webinar Meeting - 3/10/2021 @ 3:00 PM EST

I.	Welcome	Karen Wayland, Interim CEO
II.	Antitrust Guidelines	Richie O'Neill, Executive Director
III.	Discussion on Policy and Administration Updates	K. Wayland
IV.	Update on GridWise Themes	K. Wayland
V.	Presentation on Resilience from the Office of Cybersecurity, Energy Security, and Emergency Response and the Office of Electricity	Kate Marks, Deputy Assistant Secretary, Infrastructure Security and Energy Restoration, CESER Johanna Zetterberg, Managing Director of Energy Resilience Division, Office of Electricity
VI.	Recap and Upcoming Schedule	R. O'Neill

GRIDWISE ALLIANCE

GridWise Alliance
Antitrust Compliance Program Guidelines

It is the policy of the GridWise Alliance to comply fully with the antitrust laws. The Sherman Act and other applicable antitrust laws are intended to promote vigorous and fair competition and to combat various restraints of trade.

Each person who participates in GridWise Alliance activities has a responsibility to his/her employers and to the GridWise Alliance to avoid any improper conduct from an antitrust standpoint. The following guidelines will assist in meeting this responsibility:

1. GridWise Alliance meetings and discussions generally cover topics related to the generation, transmission and distribution of electricity. Should related discussions ever have any potential for competitive impact, all due care shall be taken to avoid such discussion between competitors.

2. In view of antitrust considerations and to avoid any possible restraints on competition, the following legally sensitive subjects must be avoided during any discussion between competitors:

   (a) Future marketing plans of individual competitors should not be discussed between competitors;

   (b) Any complaints or business plans relating to specific customers, specific suppliers, specific geographic markets or specific products, should not be discussed between competitors;

   (c) Purchasing plans or bidding plans of companies in competition should not be discussed (except privately between two parties with a vertical commercial relationship such as supplier and customer); and

   (d) Current and future price information and pricing plans, bidding plans, refund or rebate plans, discount plans, credit plans, specific product costs, profit margin information and terms of sale should not be discussed between competitors. All of the above are elements of competition.

3. Any question regarding the legality of a discussion topic or business practice should be brought to the attention of the GridWise Alliance legal counsel or a company's individual legal counsel for advice.

2021 Themes – Month by Month Schedule

Tackling a topic each month

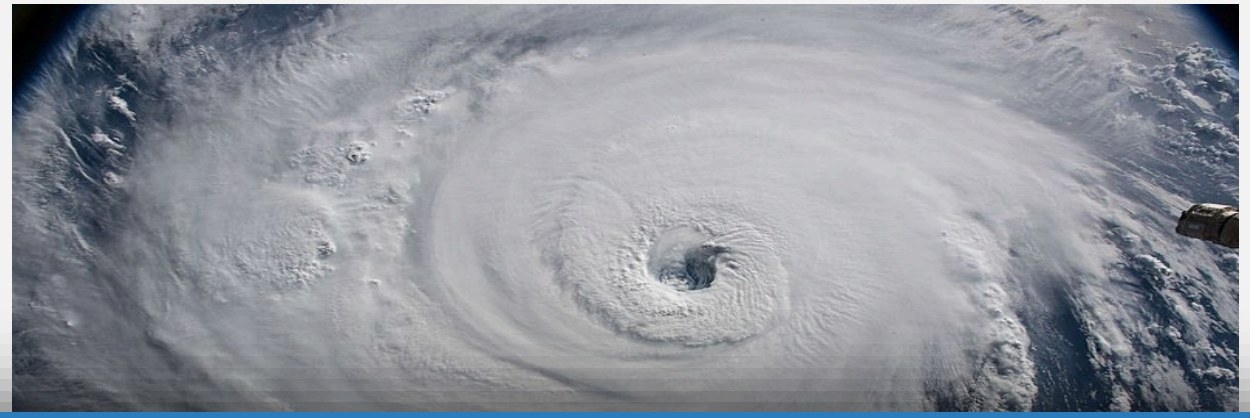
- **Policy and Technology Council Meetings:** bring other perspectives to our members
- **Topical Focused Newsletter Content:** supports alignment of messaging
- **Member Profiles on website:** promotes member voices
- **Industry Focused/Hill Focused Educational Webinars:** to spotlight our members
- **Op-Eds and primers on key topics:** to inform GridWise members

Goals within each theme

1. Engage new members each month
2. Develop new partnerships and strengthen existing ones
3. Highlight GridWise members' efforts
4. Recruit new members each month
5. Elevate the voice of GridWise

2021 Themes – Month by Month Schedule

Month	Topic
March	Resilience
April	Bringing Offshore Wind Onshore
May	Transportation Electrification
June	Integrating Renewables
July	Digital Grid
August	Buildings as Grid Assets
September	Cybersecurity
October	Transmission Technologies
November	Storage for Grid Reliability
December	Distribution Technologies

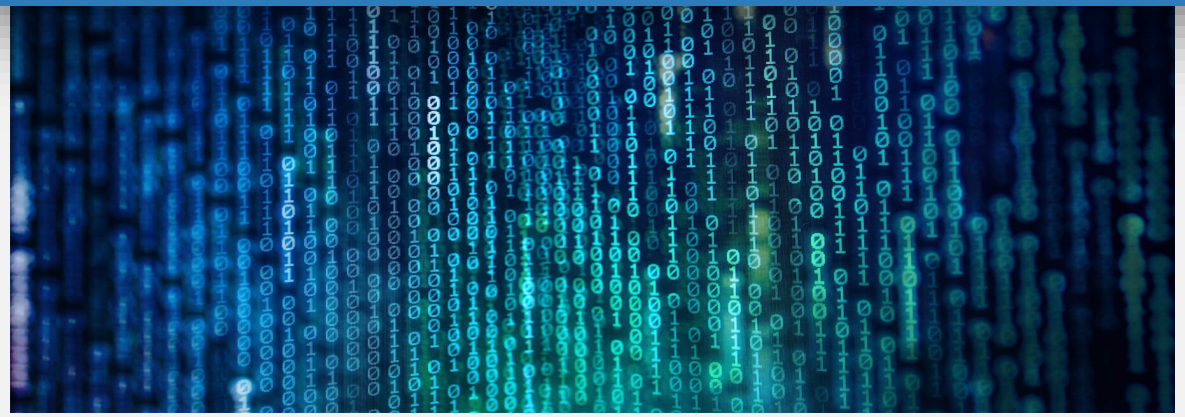


U.S. DEPARTMENT OF ENERGY | OFFICE OF Cybersecurity, Energy Security, and Emergency Response

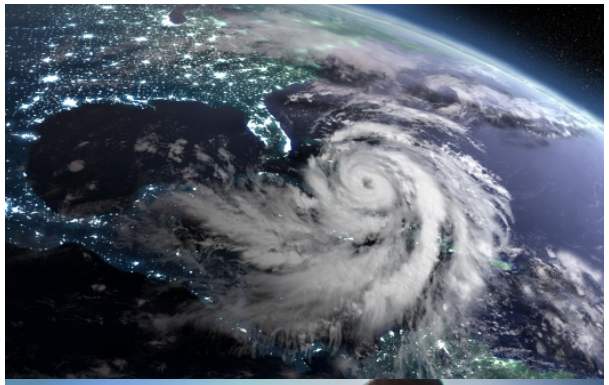
Resilience: Preparedness and Response

GridWise Alliance Policy Committee

March 2021



DOE's Priorities

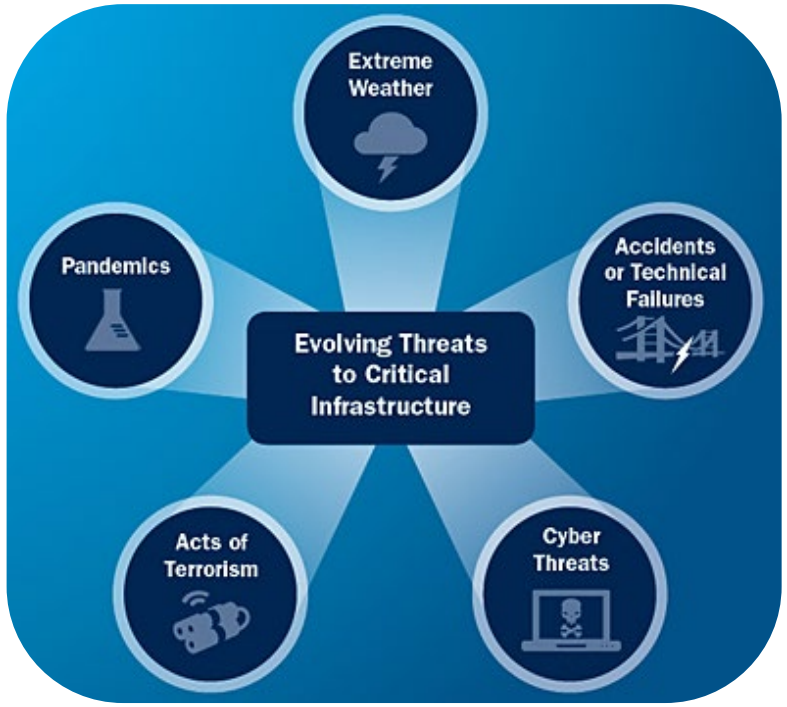


- Combating Climate Change
- Creating Clean Energy Union Jobs
- Promoting Energy Justice

U.S. DEPARTMENT OF ENERGY | OFFICE OF Cybersecurity, Energy Security, and Emergency Response

CESER Mission

- Enhance the security of U.S. critical energy infrastructure to all hazards
- Mitigate the impacts of disruptive events and risk to the sector overall through preparedness and innovation
- Respond to and facilitate recovery from energy disruptions
- Collaborate with other Federal agencies, the private sector, academia, National Labs, and State, local, tribal, and territory governments



Infrastructure Security & Energy Restoration (ISER) Division

Preparedness and Exercises

- State Energy Security Planning
- Cyber Threat Information Sharing
- Supply Chain Cybersecurity
- Energy Sector Exercises
- Government-Industry Coordination
- Risk and Hazards Analysis
- International & Defense

Emergency Response and Recovery

- Emergency Response (ESF#12)
- Cyber Incident Coordination
- Situational Awareness
- Situational Analysis

U.S. DEPARTMENT OF ENERGY | OFFICE OF Cybersecurity, Energy Security, and Emergency Response

Collaboration Across the Energy Sector

State, Local, Tribal, and Territorial (SLTT) Government Coordination

National Association of State Energy Officials

NGA NATIONAL GOVERNORS ASSOCIATION

NCSL

AMERICAN PUBLIC POWER ASSOCIATION

NEMA™

ESCC

Electricity Subsector Coordinating Council

Who	• Utility and trade CEOs and CISOs/CIOs
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

OIL AND NATURAL GAS SECTOR COORDINATING COUNCIL

Who	• Oil & natural gas trade associations and their members
Purpose	• Coordinate security strategies, policy, and communications across the sector to support the nation's security mission.
Working Groups	• Cyber • Information Sharing • Emergency Management • Law Enforcement Engagement • Pipelines

Energy Sector Training and Exercises

- DOE's CyberForce Competition™ is a collegiate cyber defense competition in which students defend simulated cyber-physical infrastructure against professional red-team attackers.

- DOE hosts and engages in natural hazards and cyber focused exercises internally, with other agencies, and with states and the private sector: Clear Path and Liberty Eclipse.

- CyberStrike is a hands-on industrial control systems (ICS) workshop that provides defense experience to the sector based on real-world attack methods in order to strengthen industry's ability to detect and respond within compressed timelines to prevent high impact consequences.

RFORCE COMPETI

petition 2020 is going virtual! With much considerati
s that the nation is currently going through, the 2020
as an individual competition. For this competition, co

Sponsored by the U.S. Department of Energy

Contact Information

Kate Marks
DAS, ISER
Kate.Marks@hq.doe.gov
202-586-9842

Brandi Martin
SLTT Program Manager
Brandi.Martin@hq.doe.gov
202-586-7983

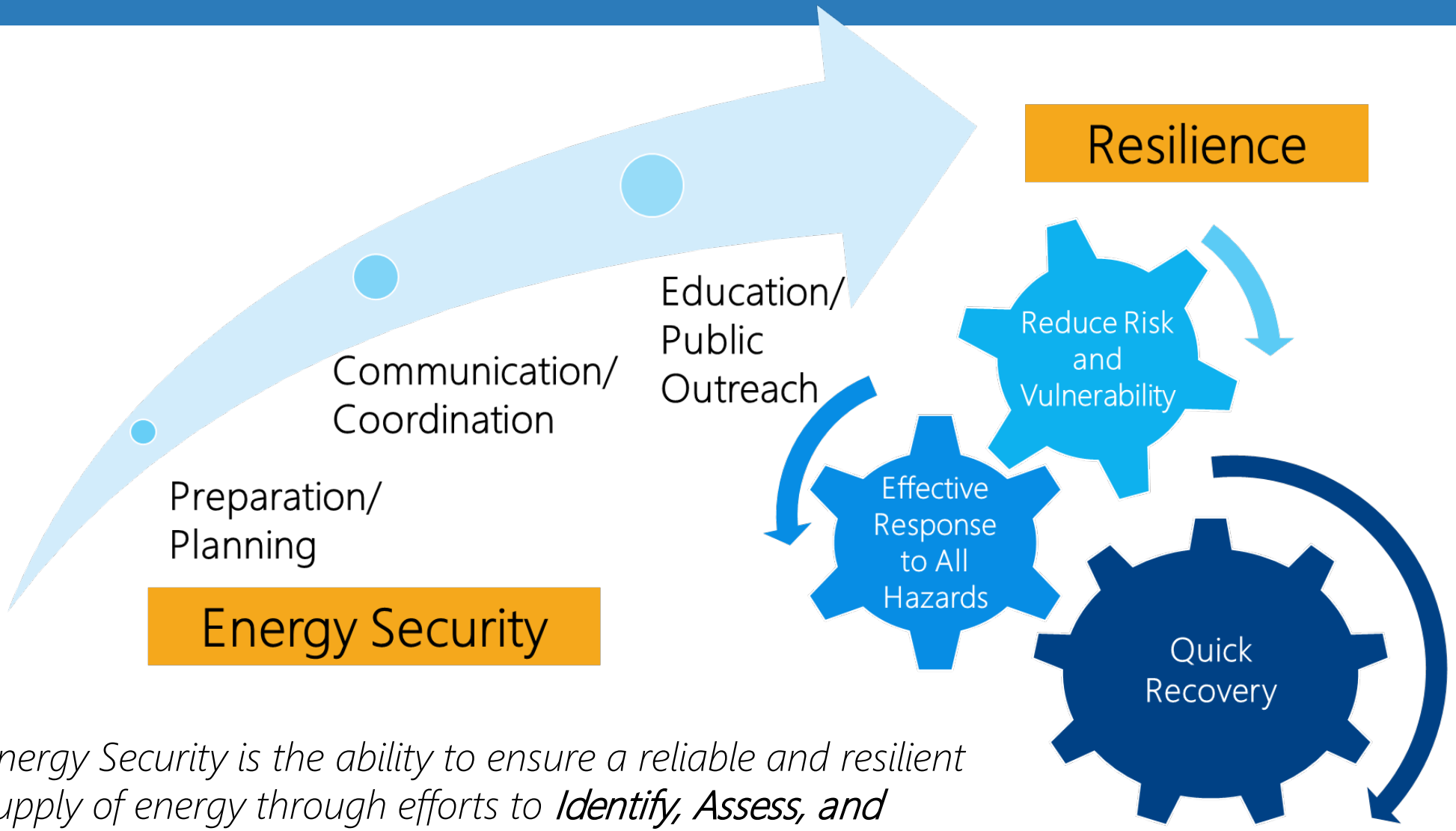
Brian Marko
Energy Exercises Program Manager
Brian.Marko@hq.doe.gov
202-718-4980

Visit our website:
www.energy.gov/ceser

U.S. DEPARTMENT OF ENERGY | OFFICE OF Cybersecurity, Energy Security, and Emergency Response

ADDITIONAL SLIDES

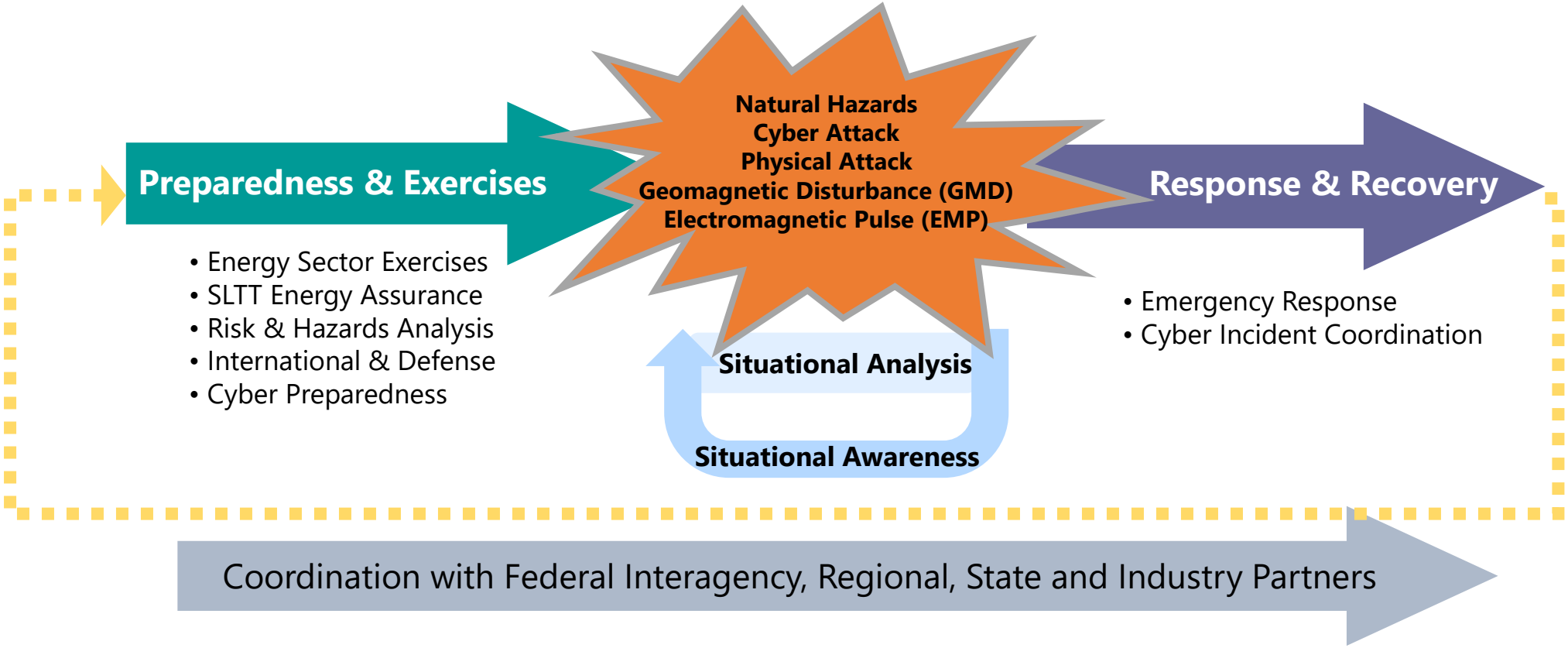
Energy Security & Resilience



Energy Security is the ability to ensure a reliable and resilient supply of energy through efforts to ***Identify, Assess, and Mitigate Risks*** *to energy infrastructure and* ***to Plan for, Respond to and Recover from*** *events that disrupt energy supply.*

U.S. DEPARTMENT OF ENERGY | OFFICE OF Cybersecurity, Energy Security, and Emergency Response

Infrastructure Security & Energy Restoration (ISER) Division



Sector Specific Agency (SSA) & Sector Risk Management Agency (SRMA)

- PPD-8 – Preparedness
- PPD-21 – Infrastructure
- PPD-41 – Cyber
- National Infrastructure Protection Plan (NIPP)

ESF #12

- PPD-44 – Response
- National Response Framework
- Stafford Act
- National Cyber Incident Response Plan (NCIRP)

PPD: Presidential Policy Directive

Resilience: Energy Planning, Recovery and Critical Energy Infrastructure

GridWise Alliance Policy Council

10 March 2021

U.S. DEPARTMENT OF ENERGY | OFFICE OF ELECTRICITY

DOE Office of Electricity

Our Mission

A secure and resilient power grid is vital to national security, economic security, and the services Americans rely upon. OE leads the DOE efforts to ensure the Nation's most critical energy infrastructure is secure, drive grid technology evolution and enable to rapid recovery from disruptions. OE also leads activities that provide long-term transformational strategies to ensure that it supports the evolving grid and emerging threats, like climate or cyber events.

Three Divisions

Energy Resilience

- Energy planning, recovery & critical energy infrastructure

Advanced Grid R&D

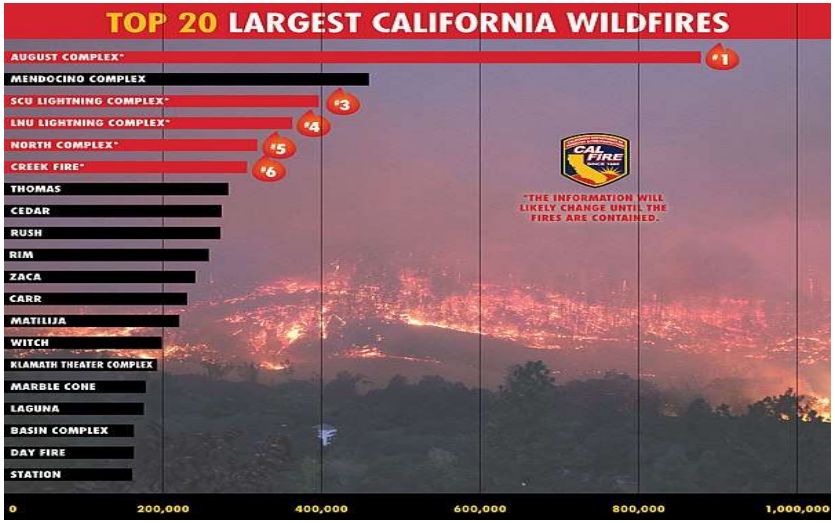
- Smart grid, microgrid, storage

Grid Operations Technology

- Grid modeling

Need for Coordinated Pre- and Post-Disaster Recovery Support

Power lines and debris cover a road after Hurricane Maria. *Source: Carlos Giusti / AP Images*



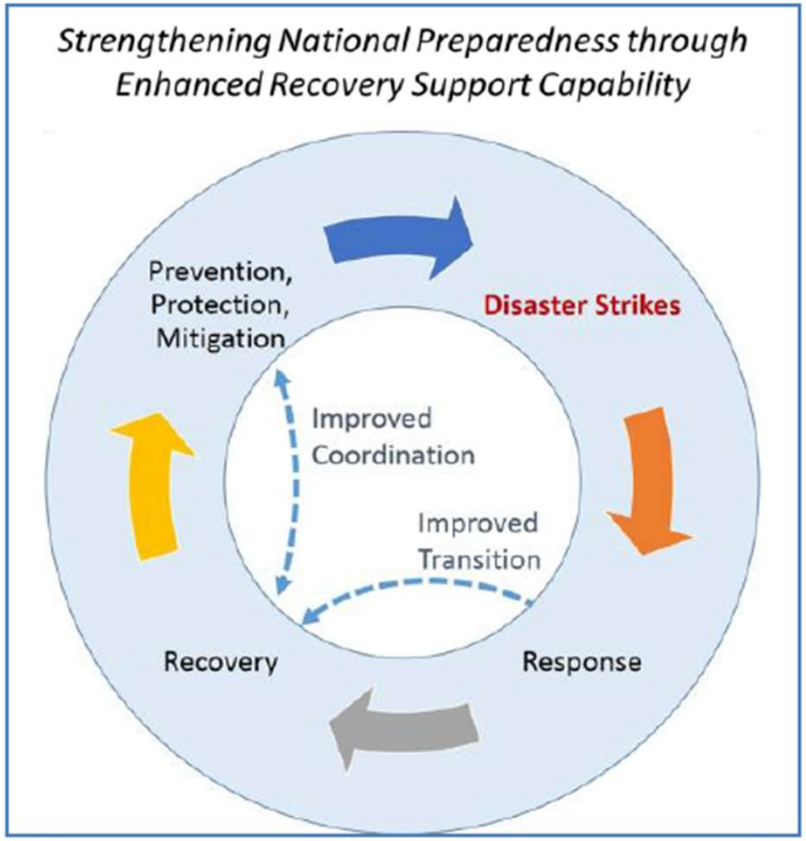
Source: California Department of Forestry and Fire Protection

Source: NOAA

U.S. DEPARTMENT OF ENERGY | OFFICE OF ELECTRICITY

DOE Approach to Recovery

- Preparedness requires DOE action to **mitigate, respond to, and recover from** disasters.
- Recovery requires a **whole-of-government, coordinated public/private response** to increasing and intensifying threats.
- DOE has cross-cutting capabilities to address risks and consequences across the **full life cycle of a disaster.**



DOE Authorities and Competencies

Authority/Competency	Description	Lead Office
DOE Roles and Partnerships		
Energy Resilience Division - RCEI	Leads the coordinated DOE effort to prepare for, respond to, and recover from all hazards that damage energy systems.	OE
ISER/CESER	Supports state, local, tribal, and territorial government efforts to effectively plan for and mitigate disasters prior to their occurrence. Also supports a wide variety of stakeholders' participation in regional and national exercises.	CESER
Energy Transitions Initiative	Works with some of the nation's most vulnerable communities from remote villages in Alaska to islands in the Pacific and Caribbean to mitigate their exposure to disruptions.	OE and EERE
Grid Modernization Initiative and NARUC-NASEO Task Force on Comprehensive Electricity Planning	Advances tools and techniques stakeholders can use to become more resilient through enhanced planning and operations.	OE
Interagency Roles		
ESF-12	The National Response Framework designates DOE as the Emergency Support Function-12 (ESF-12), the primary coordinator of Federal energy system restoration.	OE
NDRF	Under the National Disaster Recovery Framework DOE is designated a Primary Agency for energy sector recovery – in coordination with the U.S. Army Corps of Engineers, who acts as the Infrastructure Systems Recovery Support Function.	OE
RSFLG	An interagency body convened by FEMA and operates at the HQ level to facilitate information sharing and policy coordination for national recovery activities.	OE

Planning and Decision Support

Energy Transitions Initiative (ETI) and Partnership Project (ETIPP)

ETI Mission

Advancing self-reliant island and remote communities through resilient energy systems.

Outcomes of interest:

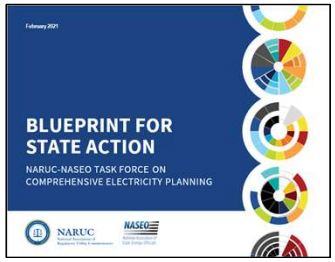
- Local resource reliance
- Institutional, social, and economic resilience
- Enhanced institutional capacity
- Lower costs / cost predictability
- Replicable approach

www.energy.gov/eere/about-us/energy-transitions-initiative

NARUC-NASEO Task Force on Comprehensive Electricity Planning

All Task Force materials are now available: www.naruc.org/taskforce

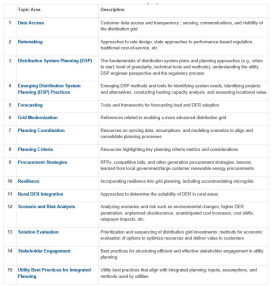
Task Force members, NARUC and NASEO staff, technical and subject matter experts, and others developed a robust set of resources to support state decision makers in advancing aligned electricity system planning processes.



Opportunities to Improve Analytical Capabilities towards Comprehensive Electricity System Planning

Task Force Briefing Paper: *Standard Building Blocks of Electricity System Planning Processes*

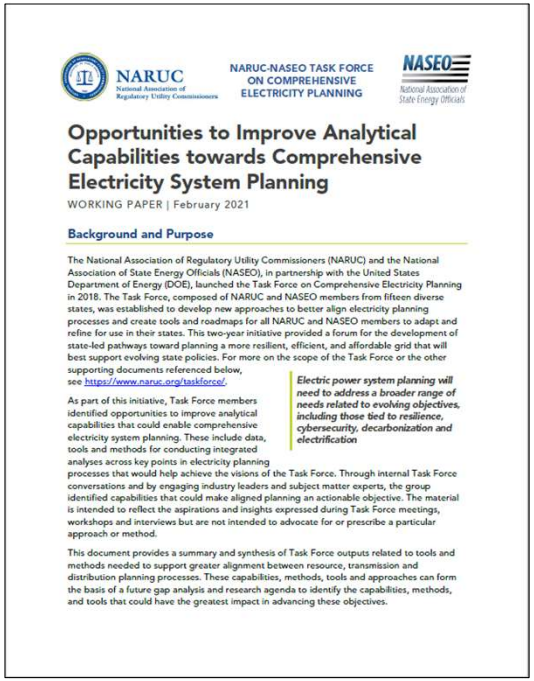
Comprehensive Planning Library: resources across 15 topical areas



NARUC National Association of Regulatory Utility Commissioners

NARUC-NASEO TASK FORCE ON COMPREHENSIVE ELECTRICITY PLANNING

NASEO National Association of State Energy Officials



NARUC
National Association of Regulatory Utility Commissioners

NARUC-NASEO TASK FORCE ON COMPREHENSIVE ELECTRICITY PLANNING

NASEO
National Association of State Energy Officials

Opportunities to Improve Analytical Capabilities towards Comprehensive Electricity System Planning

WORKING PAPER | February 2021

Background and Purpose

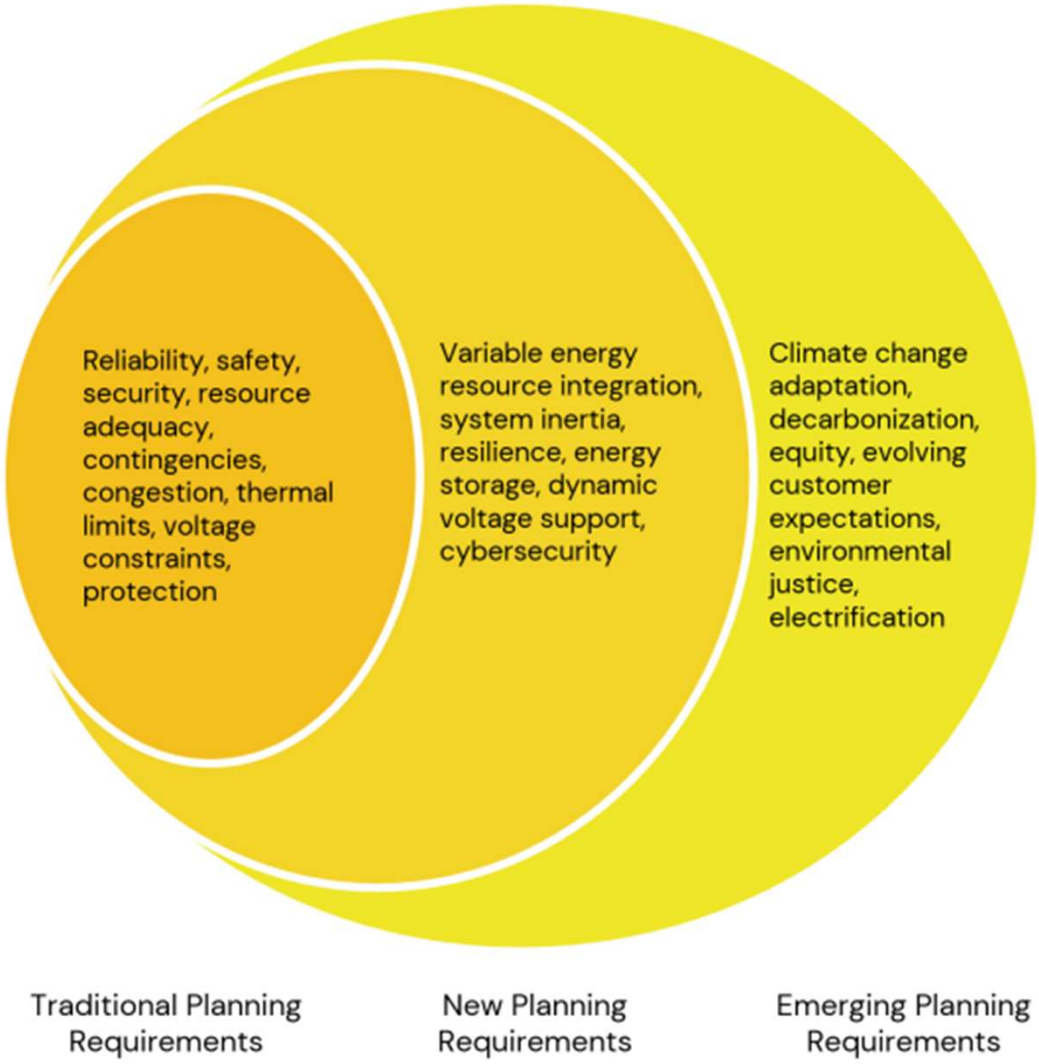
The National Association of Regulatory Utility Commissioners (NARUC) and the National Association of State Energy Officials (NASEO), in partnership with the United States Department of Energy (DOE), launched the Task Force on Comprehensive Electricity Planning in 2018. The Task Force, composed of NARUC and NASEO members from fifteen diverse states, was established to develop new approaches to better align electricity planning processes and create tools and roadmaps for all NARUC and NASEO members to adapt and refine for use in their states. This two-year initiative provided a forum for the development of state-led pathways toward planning a more resilient, efficient, and affordable grid that will best support evolving state policies. For more on the scope of the Task Force or the other supporting documents referenced below, see https://www.naruc.org/taskforce/.

Electric power system planning will need to address a broader range of needs related to evolving objectives, including those tied to resilience, cybersecurity, decarbonization and electrification

As part of this initiative, Task Force members identified opportunities to improve analytical capabilities that could enable comprehensive electricity system planning. These include data, tools and methods for conducting integrated analyses across key points in electricity planning processes that would help achieve the visions of the Task Force. Through internal Task Force conversations and by engaging industry leaders and subject matter experts, the group identified capabilities that could make aligned planning an actionable objective. The material is intended to reflect the aspirations and insights expressed during Task Force meetings, workshops and interviews but are not intended to advocate for or prescribe a particular approach or method.

This document provides a summary and synthesis of Task Force outputs related to tools and methods needed to support greater alignment between resource, transmission and distribution planning processes. These capabilities, methods, tools and approaches can form the basis of a future gap analysis and research agenda to identify the capabilities, methods, and tools that could have the greatest impact in advancing these objectives.

- Working paper synthesizing input from TF members, stakeholders, SMEs, utility planners
- Focus on data needs & modeling capabilities to support Task Force visions
- Foundation for gap analysis & research agenda



Examples of Planning Tools and Research

- Engage

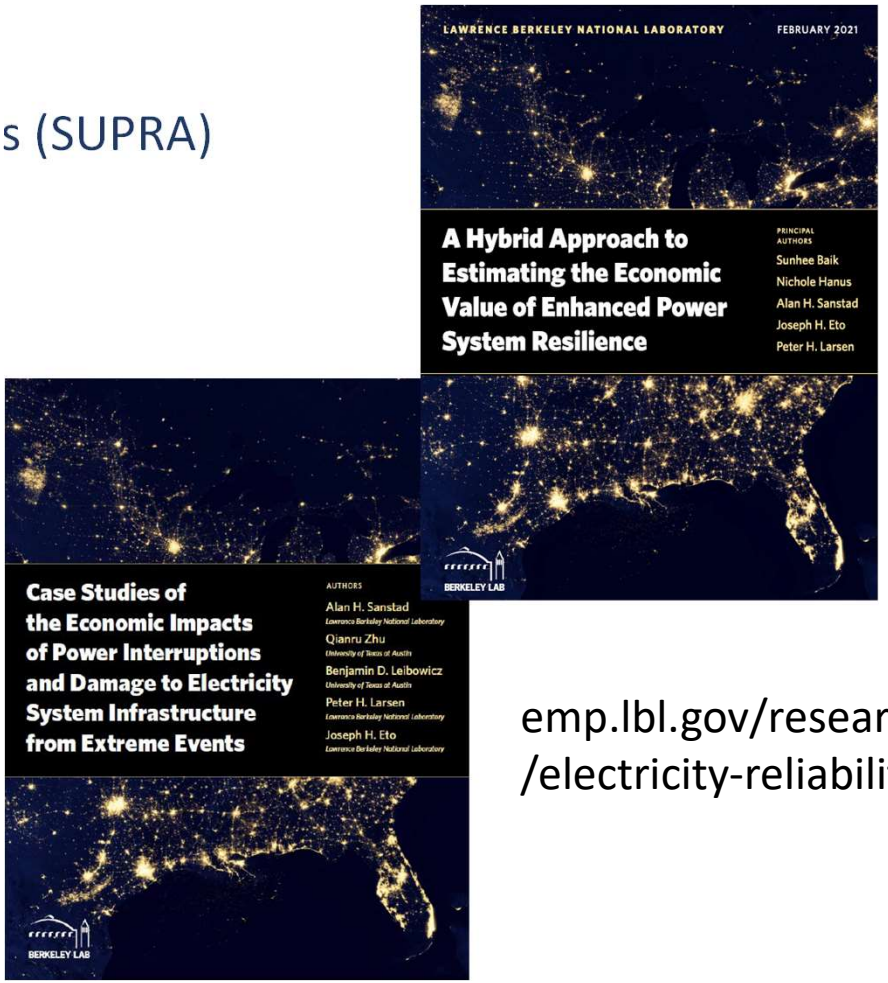
https://www.energy.gov/eere/engage-energy-modeling-tool

- Standardized Utility PRoforma Analysis (SUPRA)

https://emp.lbl.gov/projects/supra-tool

- FRONTIER

Under development



emp.lbl.gov/research
/electricity-reliability

Defense Communities

Defense Critical Electric Infrastructure

- Secretary of Energy designation authority from Federal Power Act
- Energy assurance for national defense and security missions

The US military helped keep the heat and lights on for one Nebraska city as temperatures plummeted


By Barbara Starr and Ellie Kaufman, CNN
Updated 6:58 PM ET, Thu February 18, 2021

A F35 fighter jet at Offutt Air Force Base at the Nebraska Defenders of Freedom Air Show.

https://www.cnn.com/2021/02/18/politics/military-omaha-power-weather/index.html

U.S. DEPARTMENT OF ENERGY | OFFICE OF ELECTRICITY

Recovery Efforts

Puerto Rico Recovery

Mission: Under an agreement with FEMA, DOE will support local public entities and federal agencies in resilient recovery efforts from damage incurred by Hurricane Maria across the Commonwealth of Puerto Rico.

1. Enhance institutional capacity to conduct technical analyses and modeling to support the interconnection, integration, and operation of distributed and utility scale generation.

2. Assist planning to enhance the resilience of the power system including review of technology types and sizes along with optimal dispatch schedules.

3. Develop and review feasibility studies, RFPs, and responses for federally funded projects identified to support the resilient recovery of the PR power system.

United States Virgin Islands

Commonwealth of the Northern Mariana Islands

A solar panel array destroyed by Hurricanes Irma and Maria in St. Thomas, U.S. Virgin Islands, is pictured Sept. 25, 2017. The array provided a small percentage of power to the island. *Source: Hilary Swift/The New York Times*

Meet the Recovery and Critical Energy Infrastructure Team

Jennifer DeCesaro
Director
jennifer.decesaro@hq.doe.gov

Johanna Zetterberg
Managing Director
johanna.zetterberg@hq.doe.gov

Puerto Rico
Energy Recovery

Energy Transitions Initiative
Defense Communities

Marisol Bonnet
Team Lead
marisol.bonnet@hq.doe.gov

Elizabeth Arnold
Program Analyst
elizabeth.arnold@hq.doe.gov

Eric Britton
Program Analyst
eric.britton@hq.doe.gov

Rebecca Asch
Program Analyst
rebecca.asch@hq.doe.gov

Aaron Ng
Program Analyst
aaron.ng@hq.doe.gov

Upcoming Schedule

- Grid Investments Initiative Biweekly Meeting
  Tuesday, March 16 @ 11:00 AM EDT
- GridWise Texas Insights Panel
  Thursday, March 18th @ 3:00 PM EDT
- Technology Council Webinar – Tech Opportunities for Resilient Grid Applications
  Wednesday, March 24 @ 3:00 PM EDT
- Policy Council Meeting
  Wednesday, April 14 @ 3:00 PM EDT