

# State, Local, Tribal, and Territorial Program

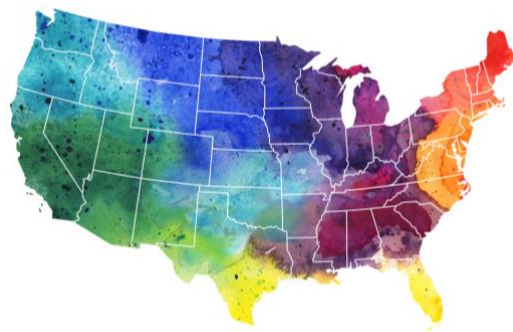
## 2020 Year in Review

U.S. DEPARTMENT OF  
**ENERGY**

OFFICE OF  
Cybersecurity, Energy Security,  
and Emergency Response

## Introduction

State, local, tribal, and territorial (SLTT) government officials play a critical role in energy security and resilience planning and emergency preparedness and response. Energy is essential for our daily lives and SLTT officials hold operational, tactical, and policy development roles that can affect the energy sector. The Office of Cybersecurity, Energy Security, and Emergency Response (CESER) strives to cultivate relationships with these stakeholders to champion and support their efforts. Progress at the local and state level bolsters the nation's overall energy security, leading to a more resilient energy sector that is better able to prevent, mitigate, withstand, respond to, and recover from disruptions.



CESER's mission is to enhance the security of U.S. critical energy infrastructure, reduce the risk and mitigate the impacts of disruptive events on the sector through preparedness and innovation, and respond to and facilitate recovery from energy disruptions. CESER's strategic goals and objectives align with its mission and are performed in collaboration with other federal agencies, the private sector, and SLTT governments.

## SLTT Program and Energy Stakeholders

CESER's SLTT Program supports **governors** and their energy advisors, **state energy office directors** and staff, **public utility commissioners** and staff, **state legislators** and staff, **emergency managers**, **municipal utilities**, and **tribal leaders** through collaborative agreements with partners and through direct engagement.

CESER partners with state and local organizations, including the [National Association of State Energy Officials \(NASEO\)](#), [National Association of Regulatory Utility Commissioners \(NARUC\)](#), [National Conference of State Legislatures \(NCSL\)](#), [National Emergency Management Association \(NEMA\)](#), [National Governors Association \(NGA\)](#), and the [American Public Power Association \(APPA\)](#). Engagement with these groups, whose membership reflects SLTT officials involved in energy security planning and emergency response, enhances CESER's ability to reach these stakeholders and support their efforts. For example, through NARUC's Committee on Critical Infrastructure and NASEO's Energy Security Committee, CESER engages with state energy officials to understand their challenges, and collect feedback to strategically inform future SLTT activities aimed at addressing SLTT needs.

CESER builds energy security capacity at the state and local levels and advances emergency preparedness and response efforts for all hazards through a suite of analytical tools, risk analysis, educational seminars, workshops, and exercises. CESER's resources and technical assistance strengthen coordination and advance SLTT energy security planning, risk awareness, policy and investment decisions, and mitigation strategies. CESER leverages its relationships with state and local organizations and DOE National Laboratories to develop these tools and trainings specific to SLTT needs.

DOE has a unique ability to convene a holistic set of stakeholders from different states, state agencies, and associations, facilitating joint initiatives that would be difficult for a single state to orchestrate. For example, through the National Association of State Energy Officials and the National Emergency Management Association, CESER supports 11 western states with regional planning for a petroleum shortage response. These cross-agency, multi-state initiatives are critical because energy flows across state borders, and a disruption or event in one state can affect energy supply in neighboring states. By bringing multiple stakeholders together, CESER fosters new relationships and cultivates existing ones, and provides a forum for planning that ultimately leads to more effective coordination.

## 2020 Key Accomplishments

The *SLTT 2020 Year in Review* highlights key [energy security](#), [cybersecurity](#), and [emergency response](#) activities and resources developed by the CESER SLTT Program team and partners that contribute to the resilience of the nation's energy sector.

### Energy Security



*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.*

### Oil and Natural Gas Value Chain State Seminar



CESER and partners from the Oil and Natural Gas Subsector Coordinating Council (ONG SCC)<sup>1</sup> facilitated an educational seminar in November to provide over 100 state energy and emergency management officials from 30 states with a foundational overview of the segments of the ONG value chain.

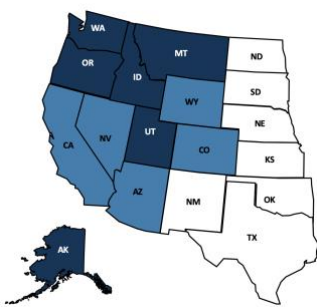
<sup>1</sup> [ONG SCC](#) represents all segments of the oil and natural gas industry and provides a forum to coordinate security strategies, activities, policy, and communication across the sector and with DOE.



Representatives from the American Petroleum Institute (API), Energy Marketers of America (EMA), American Fuel and Petrochemical Manufacturers (AFPM), American Gas Association (AGA), and Interstate Natural Gas Association of America (INGAA) delved into topics ranging from the natural gas supply chain to oil pipeline safety and resilience, culminating in an engaging discussion with state attendees.

The session received glowing feedback from attendees, providing valuable insights for attendees who were unfamiliar with the oil and natural gas sectors as well as those with more knowledge and experience. Post event, state participants were connected with a trove of resources, which they expressed interest in sharing with colleagues for educational purposes.

### Western Petroleum Shortage Response Collaborative (NASEO and NEMA)



The Western Petroleum Shortage Response Collaborative (WPSRC) was launched by NASEO and NEMA to facilitate the coordination and development of a regional catastrophic fuel response framework among a subset of western states. This initiative is a state-driven acknowledgement of the need to coordinate across state lines to prepare for petroleum shortages that could affect the region. In 2019, energy and emergency managers from 10 states gathered for a Planning Workshop to define their current capacity and practices in responding to a petroleum shortage.

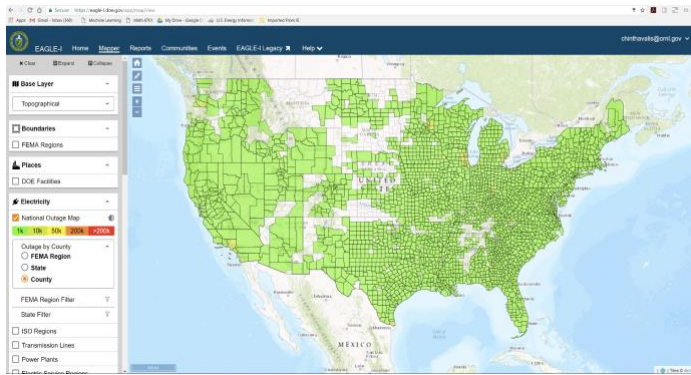
In 2020, CESER, NASEO, and NEMA continued this multi-state effort to address the challenges identified by states in the workshop. In March, state energy officials and emergency managers from Alaska, Idaho, Montana, Oregon, Utah, and Washington explored how states might develop more comprehensive plans to respond to fuel shortages. Collaborative members shared plan updates, state priorities, and challenges and identified actions needed to reach the Collaborative's regional coordination goals. Despite a hiatus at the onset of the COVID-19 pandemic, the Collaborative reconvened virtually in the fall to welcome additional members from Arizona, California, Colorado, Nevada, and Wyoming. The Collaborative's vision and goals were reviewed and members discussed their state and agency-specific approaches to petroleum shortage planning and response. The webinar led to further engagement, with several Collaborative members participating in CESER's ONG Value Chain State Seminar and Clear Path VIII Exercise. Collaborative efforts will continue in 2021.

### Energy Security and Data Analysis Webinars (NASEO and NARUC)

Energy system situational awareness requires continual monitoring, analysis, and sharing of key information. Knowledge of available data sources and tools and an understanding of how to best use them can help state officials efficiently and effectively communicate information and possible actions to decision makers before, during, and after energy emergencies. To enhance their capacity to obtain, interpret, and make recommendations based on relevant data, NASEO and NARUC organized a 2019

[Workshop](#), attended by 61 participants from 24 states and affiliate organizations. Building off the well-received workshop, NASEO and NARUC organized several follow-up webinars in 2020.

The first [webinar](#) featured a review of state and federal GIS tools used for energy emergency response and resilience planning, including DOE's EAGLE-I Tool. The webinar explored the tools' applications, replicability, and how states use them to inform policy or regulatory decisions. Focusing on another



challenge of emergency response, NASEO and NARUC facilitated a [peer-to-peer learning webinar](#) to discuss communication techniques during energy emergencies. The 87 attendees heard from the Pennsylvania Public Utility Commission, Tennessee Emergency Management Agency, and Rocky Mountain Power regarding energy emergency public messaging, rumor control, and public-private

coordination. Presenters relayed actionable steps to prepare and practice messaging ahead of an emergency and discussed how to execute an effective messaging strategy. A key takeaway from the [recorded session](#) was that crisis communications requires substantial planning and practice, and should be viewed as a systematic and scientific approach.

## Virtual Island Storm Preparedness and Resilience Workshop (APPA)

In August, APPA hosted a [virtual, half-day seminar](#) on storm preparedness for island utilities and response partners. The U.S. territories face unique challenges during response and recovery due to their geographic separation from the contiguous United States. Among the 75 attendees were municipal utility and government representatives from Puerto Rico, the U.S. Virgin Islands, the Commonwealth of the Northern Mariana Islands, and Guam. This interactive seminar featured robust discussions around the proactive actions utilities and partners can take to be ready for future storm events, and it touched on post-incident mutual aid coordination, damage assessment, transportation, logistics, and incident management.



## State Legislative Actions (NCSL)

NCSL published [Securing the Nation's Energy Future: 2019–2020 State Legislative Action](#), which tracks legislation and policy trends and hones in on the recent surge of legislation that addresses the various components of energy security, from wildfire mitigation to cybersecurity to grid planning and modernization. This report, sent directly to state legislators and highlighted in NCSL's "[Plugged In](#)"<sup>2</sup> monthly newsletter, has garnered nearly 1,000 web clicks since its release.



## DOE Assessment of Capabilities in Energy Security or "ACES" Tool (Argonne)



Protecting and improving the resiliency of the nation's energy system is a continuous effort that requires sustained vigilance, contingency planning, and training. While there are great resources and experts available, the capabilities required for a state to achieve a secure energy system have not been catalogued. The absence of a comprehensive framework hampers a state's ability to articulate a holistic energy security strategy or program, measure their capabilities, and continually evolve.

CESER and Argonne National Lab set out to identify and clearly define the key elements required for a secure energy system and associated capabilities (skills or tasks required to effectively complete the

strategic process). Successful identification of these elements and capabilities in 2020 precipitated the next stage of this ambitious project—the development of a free, online self-assessment tool, designed for energy and emergency management officials. The tool is intended to guide a comprehensive evaluation of existing state energy assurance and emergency response plans and in-house capabilities and identify relevant resources to further progress. In 2021 the online "ACES" tool will be piloted with NASEO and a handful of states before its release for broad use.

<sup>2</sup> The "Plugged In" newsletter highlights key state and federal legislation impacting energy policy and provides updates on the latest state energy news, trends, publications, upcoming meetings, and more.

## DOE State and Regional Energy Risk Profiles (Argonne)

Understanding the causes, frequency, and history of energy disruptions helps states make informed decisions about energy investments, resilience and hardening strategies, and asset management. An understanding of state risks and hazards also enables states to better prepare for potential disruptions. CESER developed **State and Regional Energy Risk Profiles**, which examine the relative magnitude of risks at a regional and state level, highlighting energy infrastructure trends and impacts across the electric, petroleum, and natural gas infrastructures.

CESER, in collaboration with Argonne National Laboratory, collected recent data and streamlined the profile layout for 50 U.S. states, the District of Columbia, and all 10 Federal Emergency Management Agency (FEMA) regions in 2020. Following the release of the profiles on CESER's website in early 2021, CESER and Argonne will build off the updated profiles to create a dynamic version of state energy risk data.

## DOE Clear Path VIII Tabletop Exercise



In November, CESER conducted the eighth iteration of the annual all-hazards energy security and resilience-focused **Clear Path Exercise**.

The hypothetical emergency scenario was a major earthquake along Utah's Wasatch Fault Zone. The virtual event helped better define the roles and responsibilities of energy sector providers, facilitation of resource requests, development of situational awareness, and communications and coordination throughout the impacted area.

Breakout discussions brought together different stakeholders to share their unique perspectives and learn from peers. The state of Utah was represented by multiple departments, and neighboring states—Colorado, Idaho, Montana, Nevada, Oregon, and Washington—also participated. Given that a real-world incident similar to the Clear Path earthquake scenario would require robust coordination across federal and state governments as well as industry, the inclusion of several states in the exercise proved valuable.

## Mutual Aid Tabletop Exercise (APPA)

In November, APPA tested its [Public Power Mutual Aid Playbook](#) in a virtual Mutual Aid Tabletop Exercise, attended by 75 people from 46 different public power (municipal) utilities, joint action/state associations, federal government partners, and industry partners from the Edison Electric Institute and the National Rural Electric Cooperative Association. The interactive exercise aimed to review, validate, and examine gaps in the Public Power Mutual Aid Playbook during a hypothetical large-scale power disruption incited by a polar vortex in the Midwest. The event focused on roles and responsibilities of member utilities during an incident, the resource request process, coordination with other energy providers, and communication and information sharing within the utility sector. Several state energy and emergency management officials were invited to observe the exercise, and they took advantage of

the opportunity to learn, build relationships, and identify ways to improve coordination during energy emergencies. The findings from the exercise (which will be captured in an after-action report in 2021), along with lessons learned from 2017–2019 mutual aid activations, will inform an update of the Mutual Aid Playbook in 2021.

## State Resilience Assessment and Planning Tool (NGA)

The NGA [State Resilience Assessment and Planning Tool \(SRAP Tool\)](#) was updated and released online in 2020 to help governors and their staff assess state resilience, identify gaps, and plan for natural and man-made disasters with the potential to affect critical energy infrastructure. In 2021, NGA will continue supporting state leadership to implement sound resilience planning and identify funding opportunities for plan implementation, such as FEMA's Building Resilient Infrastructure and Communities (BRIC) Program. NGA will work closely with DOE and other partners to design a series of activities to help governors improve their states' energy resilience.

## Cybersecurity



*Cybersecurity for critical infrastructure, particularly in the energy sector, is one of the nation's most important and complex national security challenges. A major cyberattack could cause wide-ranging national security and economic impacts. Cybersecurity can only be effectively addressed through collaborative partnerships among a broad set of stakeholders, including all levels of government, private industry, and academia.*

## Cybersecurity and the Electric Grid: The State Role in Protecting Critical Infrastructure (NCSL)

The nation's energy grid has increasingly come under attack by malicious cyber actors in recent years, which is uniquely concerning given the energy sector's enabling function across all critical infrastructure systems. While much of the distribution grid is overseen by state regulators and municipal or cooperative governance, state policymakers establish the construct under which these regulatory bodies operate. In "[Cybersecurity and the Electric Grid: The State Role in Protecting Critical Infrastructure](#)," NCSL examines the role and responsibilities of state legislators in the energy sector cybersecurity arena, as well as state and federal legislative action taken in 2019. Receiving over 2,500 page views to date, this report has been one of the top 25 NCSL energy-related webpages every month since it was published.





## 2020 Cybersecurity Efforts (NARUC)

Robust and well-established communication protocols between utilities and regulators can help prevent cybersecurity incidents and accelerate the recovery process in the event of a cybersecurity attack on energy infrastructure. With that in mind, NARUC has offered training, peer learning, and coordination opportunities for public utility commissioners (PUCs) and staff.



## Cybersecurity Training for State Regulatory Commissions

NARUC's Cybersecurity Training for State Regulatory Commissions, held virtually in September, drew an impressive 164 attendees across 46 states. The training explored cybersecurity threats to IT and OT technologies, tactics used by utilities to detect and deter cyberattacks, state and federal approaches to cybersecurity, and cybersecurity cost recovery challenges and solutions under consideration by commissions. The event's high attendance underscores the importance of cybersecurity for PUCs and the value they place on gaining expertise in this area. Recognizing the need to continue cybersecurity education, NARUC will host a second training in 2021.

## Cybersecurity Tabletop Exercise Guide

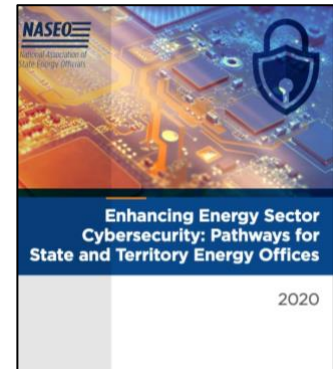
One of five tools in the [NARUC Cybersecurity Manual](#), the [Tabletop Exercise Guide](#) provides step-by-step instructions to design, conduct, and evaluate cybersecurity-focused scenarios. The example scenarios and customizable templates enable PUCs with any exercise experience level to plan and conduct an exercise examining cybersecurity response readiness. In 2021, NARUC will partner with the Texas Public Utility Commission to pilot this technical guide.

## Public Utility Commission Participation in GridEx V: A Case Study

This [report](#) examines the experiences of six PUCs who participated in NERC's GridEx V Exercise. These peer perspectives help other PUCs understand the value of actively participating, as well as the level of effort associated with helping to tailor the exercise scenarios to be more relevant for their state. The case study explores the benefits that PUCs gained from participating, as well as challenges they faced while coordinating with utilities in simulated cyber and physical attacks. Through GridEx, PUCs have the opportunity to build relationships, clarify roles, and strengthen their response capabilities in coordination with key partners. This case study aims to increase PUC participation in future exercises, as it is a key opportunity to reinforce relationships between energy stakeholders and emergency response officials, enabling better coordination during real-world events.

## Enhancing Cybersecurity: Pathways for State and Territory Energy Offices (NASEO)

Understanding and confronting cyber threats to energy infrastructure requires State and Territory Energy Officials to develop their knowledge of cyber risks, strengthen their own policies and protocols, and build relationships with all energy stakeholders. To advance this effort, NASEO released [“Enhancing Energy Sector Cybersecurity: Pathways for State and Territory Energy Offices.”](#) This report provides an overview of energy sector cybersecurity roles and responsibilities, and identifies specific actions that State Energy Offices can take to enhance internal cybersecurity and support energy sector cybersecurity within their states.



## DOE CyberForce Competition



DOE's CyberForce Competition is an annual cyber workforce development competition that aims to inspire and develop high-caliber candidates to join the energy workforce. The competition focuses on the defensive and hardening nature of energy cyber infrastructure. In November, CESER held its [sixth CyberForce Competition](#) with 10 national laboratories—the first held in a virtual environment. Over 200 collegiate students participated from 36 states. Nearly half of the universities represented at this year's competition were first-time CyberForce participants.

## DOE Liberty Eclipse 2020: Federal and Interagency Tabletop Exercise

In December, CESER conducted the Liberty Eclipse 2020 Tabletop Exercise. This series contributes to advancing the federal government's goal of strengthening overall cyber preparedness within and among the energy sector's public and private partners, and seeks to improve upon identified corrective actions from real-world response and previous cybersecurity-focused preparedness exercises. Liberty Eclipse aimed to validate mechanisms for information sharing and threat contextualization and to develop awareness of specific departmental, organizational, and industry roles and responsibilities during a significant cyber incident that results in physical impacts. Participation in the exercise included government officials from California, Connecticut, Tennessee, and Wisconsin as well as the Multi-State Information Sharing and Analysis Center (MS-ISAC).

## Emergency Response



*As lead agency for energy under the National Response Framework, DOE, through CESER, works across the energy sector to eliminate barriers and support energy emergency response and recovery coordination efforts.*

A demanding year, 2020 created many challenges for the energy sector, including a record-setting hurricane season, a derecho in the Midwest, new cybersecurity threats, and the wildfires in the western United States—all occurring in the midst of the COVID-19 pandemic. Despite the challenges and complexities brought on by the pandemic, CESER coordinated closely with states and energy system owners, operators, and sector partners to keep power and fuel flowing across the nation.

The COVID-19 pandemic has had a major impact on the nation and on SLTT energy and emergency officials. CESER supported the energy sector's emergency response by engaging continuously with the Energy Emergency Assurance Coordinators (EEACs) and state Emergency Support Function (ESF) #12 coordinators.



CESER's Emergency Response Organization and SLTT Program facilitated coordination calls with states affected by hurricanes and extreme weather, distributed COVID-19 situation reports to EEACs, developed a DOE COVID-19 Frequently Asked Questions document, and provided a collaboration site for EEAC members to access and share energy sector and SLTT-relevant COVID-19 resources. DOE also distributed letters in May 2020 and January 2021 to all U.S. governors encouraging support for Essential Critical Infrastructure Workers<sup>3</sup> in the energy sector.

<sup>3</sup> DHS CISA released guidance on [Essential Critical Infrastructure Workers](#) to help state and local jurisdictions and the private sector identify their essential workforce while responding to COVID-19. Workers who conduct operations and services essential to continued critical infrastructure viability were identified, including energy sector workers.

## 2020 CESER SLTT Speaking Engagements

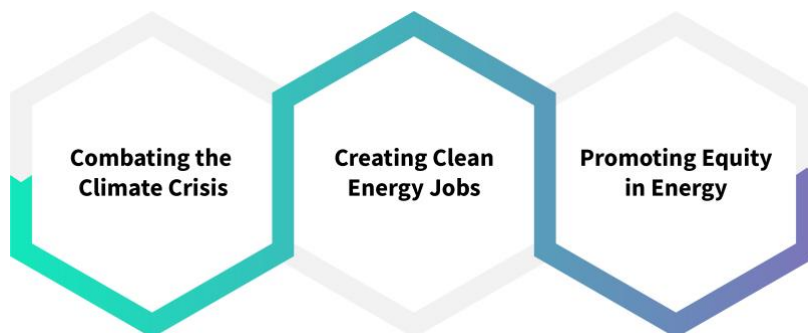
CESER appreciated the opportunity to engage with stakeholders at in-person and virtual events in 2020 and looks forward to seeing them again in 2021.

- » NASEO COVID-19/All-Hazards Calls (ongoing)
- » NASEO Energy Security Committee Calls (ongoing)
- » NARUC Critical Infrastructure Committee/ Staff Subcommittee Calls (ongoing)
- » NGA GridEx V State After-Action Workshop (Jan)
- » National Association of Counties (NACo) Legislative Conference (Feb)
- » NASEO Energy Policy Conference (Feb)
- » NGA Homeland Security Advisors Meeting (Mar)
- » NGA Briefing: COVID-19, Cybersecurity, and Critical Infrastructure (Mar)
- » NCSL COVID-19: Critical Energy Infrastructure Webinar (Mar)
- » NASEO Summer Severe Weather Outlook Webinar (May)
- » NGA COVID-19 Impacts to Energy Security Webinar (May)
- » U.S. HUD CDBG-MIT Grant: Energy Infrastructure Resilience and Mitigation Webinar (Jun)
- » NASEO Energy Office Director Training (Jul)
- » NARUC Presidential Emergency Preparedness, Recovery, and Resiliency Task Force Kick-off Meeting (Jul)
- » NARUC Summer Policy Summit—"Managing Supply Chain Risks in Critical Energy Infrastructure" Session (Jul)
- » APPA Island Preparedness Workshop (Aug)
- » NGA Energy Policy Institute (Aug)
- » NASEO-NARUC Data Analysis Webinar: GIS Systems in Energy Security (Sep)
- » NARUC Cybersecurity Training for State Regulators (Sep)
- » Resilience Week 2020 Conference: State Energy Security Session (Oct)
- » Oil and Natural Gas State Seminar (Nov)
- » APPA 2020 Mutual Aid Exercise (Nov)
- » U.S. Rep. Vela Webinar For Local Officials In the Rio Grande Valley (Dec)
- » Indian Country Energy and Infrastructure Working Group Meeting (Dec)
- » Illinois Commerce Commission Cyber Resiliency Joint Exercise (Dec)
- » NCSL Legislative Energy Horizons Institute (Dec)



## 2021 Activities

The SLTT Program is continuously working to deliver value to its SLTT partners to address the most compelling energy, climate, and cyber-security challenges facing the sector. CESER is thrilled to support the Department's "[Clean Energy Revolution](#)" by [combating the climate crisis](#), [creating clean energy jobs](#), and [promoting equity in energy](#). The SLTT Program will align to these goals while continuing to encourage holistic energy security planning and strengthen the SLTT preparedness and response capabilities.



Look for a number of resources undertaken in 2020 to be released in 2021, including:

- » Energy Security Online Training Module 1
- » White paper on energy sector cybersecurity partnerships and information sharing
- » Cybersecurity Workforce Development Reference Guide for PUCs
- » State Emergency Support #12 (ESF-12) trainings and collaboration opportunities
- » State and Tribal Energy Emergency Preparedness and Response Primers
- » White Paper on State Energy Cybersecurity Governance Bodies

Heading into 2021, the SLTT Program will be developing *new* capacity-building publications, tools, and trainings in collaboration with our partners at NARUC, NASEO, NGA, NCSL, NEMA, APPA. From a Cybersecurity Insurance Report to research on funding mechanisms for energy resilience, CESER is excited for what's in store.

To promote awareness of and improve access to the comprehensive suite of SLTT resources, CESER will add a resource library to its website in 2021. The SLTT resource library will be a one-stop shop for all your SLTT resources!

