Protecting the energy grid from national-level disasters and threats is a responsibility the government and the electric power industry share.

The CEO-led Electricity Subsector Coordinating Council (ESCC) serves as the principal liaison between the federal government and the electric power industry on efforts to prepare for, and respond to, national-level disasters or threats to critical infrastructure. The ESCC works across the sector, and with the Electricity Information Sharing and Analysis Center (E-ISAC), to develop actions and strategies that help protect the North American energy grid and prevent a spectrum of threats from disrupting electricity service.

The ESCC includes CEOs and executives from electric companies, public power utilities, and rural electric cooperatives, as well as their trade association leaders, who represent all segments of the industry. Through the ESCC, the industry works closely with its government counterparts, including senior administration officials from the White House, cabinet agencies, federal law enforcement, and national security organizations. Canadian electric company executives also are represented.

Unity of Effort / Message

The electric sector is unique in its ability to work together on critical issues. Rooted in the culture of mutual assistance, the ESCC maintains a strong focus on industry and government working in parallel to address national security threats, ensuring unity of effort and unity of message across the sector. The severity and nature of threats to the grid can be unpredictable. To combat this, the ESCC serves as a center of gravity to enable coordination of effective responses and aligned messaging.
**COVID-19 Response**

When COVID-19 first emerged in the United States early in 2020, the ESCC coordinated closely with industry stakeholders and federal government partners to align pandemic response efforts and to ensure the resilience of critical electric infrastructure across North America. Through the initial arrival and subsequent variants, the ESCC maintained twelve issue-focused “Tiger Teams” to identify and address major issues and challenges facing the electric sector. These teams also included representatives of the E-ISAC, the natural gas and nuclear energy industries, Canadian electric companies, independent power producers, and the federal government. Together, they led the development of the Resource Guide which has been praised by cross-sector partners and even international governments as a key guidance tool in responding to the virus.

**Cross-Sector Coordination**

In 2016, the ESCC appointed CEOs to serve as cross-sector liaisons to the communications, downstream natural gas, financial services, transportation, and water/wastewater sectors. The ESCC now is bringing together executive-level representatives from the electric, communications, and financial services sectors to identify mutual priorities and to develop cross-sector incident response plans and protocols. A tri-sector playbook was developed to inform how the three sectors (electric, communications, and financial services) can work together during major incidents. In addition, the ESCC has continued to support engagement with the transportation sector on the emergency movement of transformers and other heavy equipment.

**Cyber Incident Response**

The ESCC used the concept of traditional mutual assistance networks—voluntary resource sharing partnerships from across the country and Canada—to develop the Cyber Mutual Assistance program that can help electric and natural gas companies, public power utilities, and/or rural electric cooperatives restore critical computer systems following significant cyber incidents. The program now includes more than 175 entities across all segments of the industry, serving more than 85 percent of all U.S. electricity and natural gas customers.

**Cybersecurity Info Sharing**

A top ESCC priority is the exchange of threat information across the electric power industry and with the federal government. As part of that effort, the ESCC is continuing its efforts to enhance the Cybersecurity Risk Information Sharing Program (CRISP). Managed by the Electricity Information Sharing and Analysis Center (E-ISAC), CRISP is a public-private partnership initiative co-funded by DOE. Threat information is collected, analyzed, and disseminated using advanced tools that identify patterns and bolster situational awareness across the electric power industry.

**EMP Research**

The ESCC continues to partner with the Electric Power Research Institute (EPRI) and key government agencies to monitor the risks posed by electromagnetic pulses (EMPs) and to develop and implement mitigation strategies. In 2016, as part of a major collaborative research effort, EPRI released the first in a series of reports on EMP impacts on energy infrastructure, including the potential threat to large power transformers. Additional research and mitigation strategies were released in 2019, including an assessment of the tools and methods the sector can use to evaluate their vulnerability to an EMP event. The ESCC also is engaged with DOE and the Department of Homeland Security as the agencies address the requirements of the March 26, 2019 Executive Order on Coordinating National Resilience to Electromagnetic Pulses.

**ESCC Playbook**

The ESCC developed a playbook that provides senior industry and government executives with a framework to coordinate
response and recovery efforts and communication with the public during major incidents. The playbook is updated annually, tested in a series of exercises (most recently GridEx VI), and used during real-world events.

- **RESILIENT EMERGENCY COMMUNICATIONS CAPABILITIES**
  The ESCC is exploring how the sector can develop and maintain the emergency communications capabilities needed to operate the energy grid manually during a prolonged outage. In partnership with EPRI, DOE, the E-ISAC, and other stakeholders, the ESCC tested several technologies in a 2019 demonstration project. Now, the ESCC is taking a closer look at the implementation and real-world operation of various emergency communications capabilities.

- **R&D ALIGNMENT**
  The ESCC promotes ongoing collaboration with the federal government, the national labs, and the investment community to align R&D needs and priorities with those of industry and to encourage the deployment of high-priority technologies. The ESCC hosted the first National Lab Roundtable in September 2019, which brought together representatives from industry, DOE, and ten national labs to discuss common R&D priorities and objectives. The second National Lab Roundtable will feature projects that address evolving risks related to climate change, extreme weather, and the industry’s shift toward a higher density of distributed assets, renewables, and decarbonization technologies.

- **STATE COORDINATION**
  Representatives from the ESCC, the federal government, the National Governors Association, the National Association of State Energy Officials, and the National Association of Regulatory Utility Commissioners have formed a working group to discuss how the electric power sector, state officials, federal partners, and regulators can align resources and priorities, unify their message, and enhance overall awareness of incident management and resilience planning.

- **WILDFIRE MITIGATION AND RESPONSE**
  In response to the growing threat of wildfires and the potential impact to the health and safety of communities, industry and government partners elevated wildfire risk mitigation and response efforts to a national level through the ESCC Wildfire Working Group. The group is working to enable more effective engagement between stakeholders, including in the development and deployment of technologies that will improve the management of wildfire risk.

- **PREPAREDNESS EXERCISES**
  Each year, the ESCC participates in a variety of preparedness exercises to test and update its coordination and messaging protocols. These include events hosted by individual trade associations and by investor-owned electric companies, public power utilities, and rural electric cooperatives. Government-sponsored exercises, such as DOE’s Clear Path exercise series and the Federal Emergency Management Agency’s National Level Exercises were important opportunities to test responses to catastrophic incidents. The ESCC continues to play a significant role in NERC’s GridEx series which most recently took place in 2021.
LEADERSHIP
Kevin Wailes
Lincoln Electric System
(co-chair)
Bill Fehrman
Berkshire Hathaway Energy
(co-chair)
Duane Highley
Tri-State Generation and
Transmission Association
(co-chair)

STEERING COMMITTEE
Joy Ditto
American Public
Power Association
Francis Bradley
Electricity Canada
Tom Kuhn
Edison Electric Institute
Arshad Mansoor
Electric Power Research
Institute
Todd Snitchler
Electric Power
Supply Association
Mike Wallace
National Infrastructure
Advisory Council

JIM MATHESON
National Rural Electric
Cooperative Association
JIM ROBB
North American Electric
Reliability Corporation
MARIA KORSNICK
Nuclear Energy Institute
MANU ASTHANA
PJM (representing
the ISO/RTO Council)

ASSET OWNERS
CHRIS O’RILEY
BC Hydro
NICK AKINS
American Electric Power
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CHRIS CRANE
Exelon Corporation
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Georgia System
Operations Corporation
PETER GREGG
Nova Scotia Power
JACKIE CROWLEY
Middleborough Gas &
Electric Dept.
LEO DENAULT
Entergy
RALPH LAROSSA
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