

ESCC

Electricity Subsector Coordinating Council

The CEO-led Electricity Subsector Coordinating Council (ESCC) serves as the principal liaison between the federal government and the electric power industry, with the mission of coordinating efforts to prepare for, and respond to, national-level disasters or threats to critical infrastructure. The National Infrastructure Advisory Council called the ESCC a model for how critical infrastructure sectors can more effectively partner with government. The ESCC has been a catalyst for major initiatives that are improving the security posture of the industry and, by extension, the nation.

The ESCC is taking action on issues in three main areas: facilitating coordination with the government and other critical infrastructure sectors; improving information sharing capabilities, tools, and technologies; and enhancing resilience, response, and recovery efforts.

Industry-Government and Cross-Sector Coordination

The ESCC works across the electric power industry, with the government, and with other interdependent critical infrastructure sectors to improve planning for and response to major incidents. This includes conducting joint exercises, fostering a better understanding and protection of our mutual dependencies, and sharing information more effectively.

ESCC Playbook

The ESCC Playbook provides a framework for senior industry and government executives to coordinate response and recovery efforts and communications to the American public. The Playbook has been tested in a series of exercises.

Strategic Infrastructure Coordinating Council (SICC)

Given the criticality and interdependencies, the electric, communications, and financial services sector coordinating councils will form the SICC. The SICC will identify mutual priorities, develop and exercise cross-sector incident response plans and protocols, as well as align organizations, systems, processes, and technologies across sectors. The SICC also will serve as a focal point for government engagement with strategic infrastructure in steady-state and during crises. The SICC will convene a small group of senior executives representing the three sectors.

Supply Chain Security

The ESCC, in coordination with the government, has convened industry and government stakeholders, along with security and technology vendors, to identify and share best practices to address threats to the supply chain.

R&D Alignment

The industry is collaborating with the government, the national labs, and the investment community on resilience and infrastructure investments for grid security R&D.

Electromagnetic Pulse (EMP)

The ESCC has formed a task force to coordinate with the government and other critical infrastructure sectors on a national response to the threat of high-impact, low-frequency risks such as an EMP attack. The ESCC is supporting the Electric Power Research Institute's EMP Project, which will determine the vulnerability of and mitigation approaches for high-voltage and electronic equipment installed on the transmission system to various EMP threats; provide a scientific basis for investments to mitigate EMP threats to the energy grid; and inform response and recovery efforts.

Information Sharing and Tools and Technology

The ESCC works with the government and the private sector to deploy the latest tools and technologies to improve situational awareness and enable machine-to-machine information sharing.

Electricity Information Sharing and Analysis Center (E-ISAC) Member Executive Committee (MEC)

In 2015, the ESCC formed the MEC to advise the E-ISAC on ways in which the industry can speed delivery and analysis of potential threats to the power system. The MEC provides industry leadership and expertise to guide and support the E-ISAC vision and mission.

Cybersecurity Risk Information Sharing Program (CRISP)

CRISP is a public-private partnership co-funded by the Department of Energy (DOE) and industry and managed

by the E-ISAC. CRISP seeks to facilitate timely bi-directional sharing of actionable unclassified and classified threat information, using advanced collection, analysis, and dissemination tools to identify threat patterns and trends across the electric power industry.

Other Information Sharing Programs

E-ISAC, DOE, and DHS are developing additional information sharing tool programs to pilot and bring to market (Enhanced Analytics, Operational Technology Pilot, Operational Technology Sensor Project, STIX/TAXII Pilot, etc.).

Response and Recovery

During an incident, the ESCC's role is to provide situational awareness, align messaging, and serve as a counterpart for government executives on response and recovery efforts.

Mutual Assistance Programs

The three segments of the electric power industry—investor-owned, municipal, and cooperative electric companies—have voluntary mutual assistance programs in place to allocate resources in support of power restoration to participating electric companies for severe weather events.

Cyber Mutual Assistance

The ESCC has established a task force to develop a cyber mutual assistance program to aid electric companies in restoring necessary computer systems in the event of a regional or national cyber incident. This program builds on the electric power industry's culture of mutual assistance to develop resource sharing relationships that provide surge capacity should a cyber incident exceed the capacity for an individual company to respond.

Spare Equipment Programs

Electric companies also regularly share transformers and other equipment. The industry is expanding equipment sharing programs—like the Spare Transformer Equipment Program, SpareConnect, and the newly formed Grid Assurance program—to improve grid resilience from a range of threats.

Transformer Transportation Emergency Support Guide

The ESCC, in coordination with other critical infrastructure sectors and the government, has developed a Transformer Transportation Emergency Support Guide to expedite the deployment of large spare equipment, such as transformers, quickly over our rails, roadways, and waterways in an emergency.

Supplemental Operating Strategies

Following GridEx III and the cyber incident affecting Ukrainian electric companies, there has been a focus on operating the energy grid under sub-optimal circumstances. Whether resorting to manual operations, engaging in planned separations, leveraging secondary and tertiary back-up systems, or operating in other degraded states, the ESCC has asked grid experts to explore "extraordinary measures" that can be anticipated, planned for, and practiced so these are not being contemplated for the first time during an incident.

Exercises

Electric companies plan and regularly exercise for a variety of emergency situations that could impact their ability to provide electricity. The industry has participated in many incident response exercises, including several national-level exercises since November 2015.

- I. **Clear Path V** (*DOE, June 2017*) convened 200 plus participants from the Federal government and the electricity and natural gas subsectors, as well as the telecommunications sector to explore how industry and government would respond to a major hurricane strike on the Houston, TX region.
- II. **FEMA Region III** (*FEMA, May 2017*) conducted a power outage exercise that focused on how Federal, state, and local emergency managers would work with the electricity industry to respond to a physical/cyber attack on the mid-Atlantic regions power grid.
- III. **Joint Financial Services—Electric Sector Cyber Exercise** (*Treasury, August 2016*) examined incident response capabilities and interdependencies between the two sectors.
- IV. **Cascadia Rising** (*FEMA, June 2016*) was a three-day exercise that tested first responders and government emergency personnel responses in the immediate aftermath of a significant earthquake.
- V. **Cyber Guard** (*DOD/NSA, June 2016*) was a two-week exercise that tested the response capabilities of 1,000 energy, IT, transportation, and government experts to a major cyber attack.
- VI. **GridEx III** (*NERC, November 2015*) gathered more than 360 organizations and 4,400 participants from industry, government agencies, and partners in Canada and Mexico. GridEx III also included an executive tabletop exercise where 32 electric sector executives and senior U.S. government officials worked through incident response protocols to address widespread outages.