

# Protecting the Energy Grid for Customers



## Protecting the nation's energy grid and ensuring a reliable supply of energy are top priorities for America's electric companies.

**T**he energy grid is vital to the life, health, and safety of all Americans, and it is critical to the economic and national security of the nation. The men and women of the electric power industry work every day to enhance the security, reliability, and resiliency of the energy grid to protect it from all evolving threats and to deliver the energy customers need.

Our security strategies constantly evolve and are closely coordinated with the federal government through a partnership called the Electricity Subsector Coordinating Council (ESCC). By working together, industry and government greatly enhance our nation's ability to defend and to protect against cyber and physical security threats and to meet our customers' needs.

Today, the electric power industry is forging ahead with a series of initiatives to safeguard the energy grid from threats and is partnering with federal agencies to improve sector-wide resilience to cyber and physical threats. As threats to the grid grow and become more sophisticated, the industry remains committed to continuing to strengthen its defenses.

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**\$67.7**  
**billion**

According to projections, EEL member companies invested \$67.7 billion in 2020 to enhance the energy grid and to further support grid security efforts.

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## Industry-Government and Cross-Sector Coordination to Protect the Energy Grid

The electric power industry takes a risk-based “defense-in-depth” approach to protecting critical energy grid assets from all threats. This includes rigorous, mandatory, and enforceable reliability regulations; close coordination among industry and with government partners at all levels; and efforts to prepare, respond, and recover should an incident impact the energy grid.

Regulations and standards provide a solid foundation for strengthening the industry’s security posture. But, given the dynamic threat environment, the industry’s efforts are moving beyond baseline standards. Electric companies plan and regularly exercise for a variety of emergency situations that could impact their ability to provide electricity. Energy grid operators prioritize risk in order to enhance protection around critical assets, engineer redundancy to avoid single points of failure, stockpile spare equipment for hard-to-replace components, and develop other contingencies to minimize impact regardless of the nature of the incident. And, the electric power industry has a culture of mutual assistance based on decades of experience working together in response to major incidents.

The 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 ESCC includes CEOs and trade association leaders representing all segments of the industry.

### The Focus of the ESCC

- Identifying and assessing systemic risk.
- Planning and exercising coordinated responses to attacks or major disruptions to the energy grid.
- Ensuring resilient communication systems are in place to disseminate information about threats quickly between government and industry.
- Research, development, and deployment of technologies on the energy grid that improve situational awareness of threats to the energy grid.
- Developing strong partnerships with other critical infrastructure sectors (communications, transportation, financial services, water, and downstream natural gas) to plan for and respond to major incidents and to share information more effectively.
- Supporting the implementation of the grid security emergency authorities that were authorized by the Fixing America’s Surface Transportation (FAST) Act.
- Partnering with the Electric Power Research Institute and the federal government to better understand the threats posed by electromagnetic pulses (EMPs) and geomagnetic disturbances (GMDs).
- Maintaining the industry-wide cyber mutual assistance program in coordination with federal agency partners.
- Strengthening and securing the supply chain, and enhancing monitoring systems for insider threats, malware, and ransomware.
- Expanding equipment sharing programs and developing transformer transportation processes and procedures with the federal government, railroads, and heavy hauler and rigging industries.



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## ESCC: Stakeholders and Responsibilities

### GOVERNMENT

- Federal Agencies
- Regulators
- Power Marketing Administrations
- Law Enforcement
- State, Local, Tribal, and Territorial
- Canadian Agencies and Provinces

### INDUSTRY

- Electric Companies
- Trade Associations
- ISOs and RTOs
- NERC
- E-ISAC
- Canadian Electric Companies

### EXTERNAL GROUPS

- Other Critical Sectors
- Vendors
- Critical Customers
- Media

### COORDINATION

- Security to support restoration
- Media and public affairs messaging
- Logistical support and staging

### RESOURCE ALLOCATION

- Equipment, hardware, and materials
- Human resources and expertise

### CONFLICT RESOLUTION

- Investigation versus restoration
- Prioritization of recovery
- Distribution of limited resources

## Our Policy Platform

To ensure that electric companies can deliver the energy future that customers want and expect, it is critical that public policies help to strengthen the energy grid's resilience against cyber and physical security attacks and natural disasters by:

- Ensuring that stakeholders understand the value of the energy grid, and how investments in resiliency can prevent or mitigate outages.
- Building upon our partnership with the federal government and other critical sectors, and by improving the sharing of actionable security information between government and industry.
- Allowing electric companies to plan, build, and operate the energy grid as a platform to integrate a diverse set of emerging technologies.
- Promoting investment in new grid technologies while balancing security risk, operational efficiency, and customer costs.
- Encouraging expanded partnerships between the electric power industry and leading technology companies to bring tomorrow's technologies to customers today.
- Supporting federal research and development on grid security technologies and risk modelling and expediting technology transfer to the private sector.

## Learn More



### Electricity Subsector Coordinating Council

Learn more about the ESCC, the principal liaison between leadership in the federal government and in the electric power industry, on its website, [electricitysubsector.org](http://electricitysubsector.org).



### Electric Perspectives

*Electric Perspectives*, EEI's flagship publication, provides insights on the transformation underway across the electric power industry. Available in print and accessible online at [electricperspectives.com](http://electricperspectives.com).



### Energy Talk

Get the news you need on energy grid security, critical policy issues, and electric power industry trends electronically from EEI. Email [EnergyTalk@eei.org](mailto:EnergyTalk@eei.org) to subscribe.

## About EEI

The **Edison Electric Institute** (EEI) is the association that represents all U.S. investor-owned electric companies. Our members provide electricity for about 220 million Americans, and operate in all 50 states and the District of Columbia. As a whole, the electric power industry supports more than 7 million jobs in communities across the United States. In addition to our U.S. members, EEI has more than 65 international electric companies with operations in more than 90 countries, as International Members, and hundreds of industry suppliers and related organizations as Associate Members.

Organized in 1933, EEI provides public policy leadership, strategic business intelligence, and essential conferences and forums.

For more information, visit our Web site at **[www.eei.org](http://www.eei.org)**.

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