

2021

— Milestones

A widespread disruption to the energy sector could impact the U.S. energy supply, economy, and daily lives. That's why the U.S. Department of Energy's (DOE) Office of Cybersecurity, Energy Security, and Emergency Response (CESER) top priority is the security of the nation's energy systems.

This timeline highlights key milestones throughout 2021 as CESER and partners advanced collective preparedness and response to a growing landscape of evolving threats, technologies, and trends in the U.S. energy sector.

March



CESER Hosted the First-Ever ESF-12 State Training

CESER virtually launched the Emergency Support Function (ESF-12) STATE Training Series to help over 200 state and territory ESF-12 responders across the nation advance state and federal response coordination and preparedness.

May



DOE Supported Colonial Pipeline Ransomware Attack

On May 7, 2021, the Colonial Pipeline Company proactively halted pipeline operations in response to a ransomware attack on their IT system. DOE's response team worked with partners, including FBI, CISA, and FERC, to mitigate gas shortages and resume operations as quickly, safely, and securely as possible.

July



CESER Launched Cyber Tool C2M2 2.0

CESER launched C2M2 2.0, a tool to help energy organizations understand cyber risks to their IT/OT systems and measure the maturity of their cybersecurity capabilities.



CESER Invested \$4M to Elevate Grid Security and Resilience

CESER awarded \$4 million to industry and research partners to advance tools and methods to protect the U.S. grid from electromagnetic pulse (EMP) attacks and geomagnetic disturbance (GMD) events.



CESER Released CyOTE Methodology

CESER released the Cybersecurity for the Operational Technology Environment (CyOTE) Methodology, a tool developed in partnership with Idaho National Laboratory to help energy sector owners and operators identify, detect, and protect OT networks from cyber threats.

September



OT Defender 2022 Applications Opened

In September and October, CESER accepted applications for the 2022 cohort of the Operational Technology (OT) Defender Fellowship, an education program for energy sector managers. Throughout Fall, CESER also hosted several OT Defender-focused roundtables with participants including Senator Angus King and National Cyber Director Christopher Inglis.

November



DOE's CyberForce Program Expanded

DOE's premier cyber workforce development, CyberForce, now includes two virtual competitions, a webinar series, a virtual career fair, and an online workforce portal – in addition to the primary CyberForce Competition in November. This year, 120 U.S. college and university teams tested their cyber knowledge to thwart a simulated cyberattack on a hydropower company.

President Biden Passes America's Supply Chain Executive Order

On February 24, 2021, President Biden directed the federal government to modernize cybersecurity by protecting federal networks and improving information-sharing between the federal government and the private sector on key cyber issues.

April



CESER Released Updated State and Regional Energy Risk Profiles

The updated profiles examine energy sector risks at a regional and state level, while highlighting energy infrastructure trends and impacts. States can use the profiles to inform their investments, resilience strategies, and asset management.



CESER Kicked Off Industrial Control Systems (ICS) Cybersecurity Initiative

CESER, the Cybersecurity and Infrastructure Security Agency (CISA), and the electricity industry joined forces to improve the cybersecurity of the U.S. electricity subsector.



CESER and Hitachi ABB Announce Critical Partnership

In April, CESER's Cyber Testing for Resilient Industrial Control Systems (CyTRICS) program announced a partnership with leading power supply manufacturer Hitachi ABB Power Grids to advance the cybersecurity of their grid components.

June



CESER Fostered Government-Industry Collaboration Through Clear Path IX

From June to September 2021 the ninth edition of DOE's annual all-hazards exercise series Clear Path convened over 250 energy sector stakeholders to simulate the energy sector's roles, plans and procedures following a major earthquake in the Pacific Northwest.

President Biden Signed a National Security Memorandum on Critical Infrastructure Security

The memo addresses cybersecurity for U.S. critical infrastructure entities. It also formally establishes the President's ICS Initiative, launched in April.

August



CESER Announced \$2.25M to Build Wildfire Technologies

To strengthen U.S. wildfire prevention, preparedness, mitigation, and response, CESER is working with industry and the National Labs to find real-world solutions that will protect communities across the nation.



CESER Responded to Hurricane Ida

Hurricane Ida made landfall as a category 4 hurricane on August 29, 2021. DOE's Energy Response Organization was activated and 16 ESF#12 responders were deployed across the Southeast to conduct damage assessments to and work with federal, state and industry officials to assist.

October



DOE Launched the Clean Energy Cybersecurity Accelerator

Led by the National Renewable Energy Laboratory, with support from CESER and DOE's Office of Energy Efficiency and Renewable Energy, the Accelerator brings together federal expertise, energy sector asset owners, and tech innovators to develop cybersecurity solutions that are cost competitive for the nation's future clean energy grid.

Congress Passed the Infrastructure, Investment, and Jobs Act (IIJA)

The December 2021 passage of the IIJA will empower DOE, federal, state, and industry partners to harden U.S. infrastructure against increased cyberattacks and climate-induced disasters. With \$27 billion allocated for electrical grid modernization, the legislation will enable CESER to advance its energy security and resilience mission.