

U.S. Department of Energy - Office of Cybersecurity, Energy Security and Emergency Response

Energy Sector Exercises Program 2021 End of Year Report

Introduction

The United States Department of Energy (DOE) Office of Cybersecurity, Energy Security, and Emergency Response (CESER) Energy Sector Exercises (ESE) Program had a successful year in 2021 by conducting, supporting, and/or participating in thirty-two (32) exercises despite the ongoing challenges due to the COVID-19 pandemic. These exercises, along with continued collaboration and engagement with industry partners via the ESE Quarterly Exercise Forums, ensured the ESE Program contributed to CESER’s mission “to enhance the security of U.S. critical energy infrastructure to all hazards, mitigate the impacts of disruptive events and risk to the sector overall through preparedness and innovation, and respond to and facilitate recovery from energy disruptions in collaboration with other Federal agencies, the private sector, and State, local, tribal, and territory governments.”

This End of Year Report highlights departmental, CESER, and external stakeholder (industry; international; state, local, tribal, and territorial (SLTT); federal interagency; and National Security Council (NSC))-sponsored exercises. These exercises addressed a variety of threats and hazards ranging from cyber incidents to natural disasters to terrorist incidents.

The final section of this report provides a summary of the 2022 strategic vision for the CESER ESE Program and provides a glimpse of anticipated major exercises scheduled for 2023 and 2024.



Table 1: Total Exercise Events for 2021

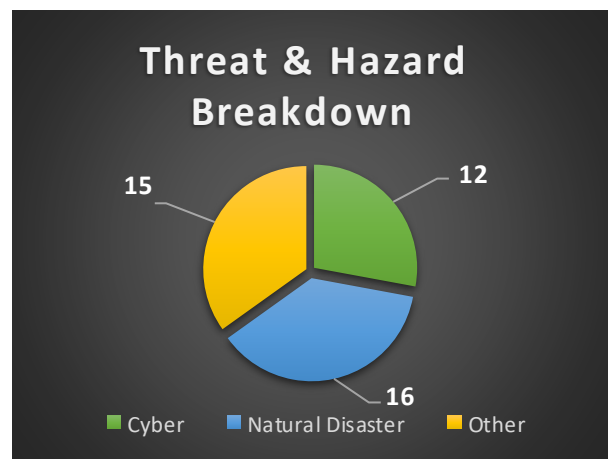


Table 2: Threat & Hazard Breakdown

Highlights from CESER Sponsored Exercises

CLEAR PATH IX: The ninth iteration of Clear Path was comprised of seven virtual exercises, conducted between 1 June - 20 September 2021, with more than 280 participants across all events. Focused on response and recovery capabilities following a catastrophic Cascadia Subduction Zone earthquake and tsunami in the Pacific Northwest region of the United States, Clear Path IX was an opportunity to bring federal, state, and private sector partners together to examine and evaluate their plans, policies, and procedures. Key discussion topics included restoration crew permitting; identification, prioritization, and deconfliction of key restoration specialties; and employee recovery-focused concerns.



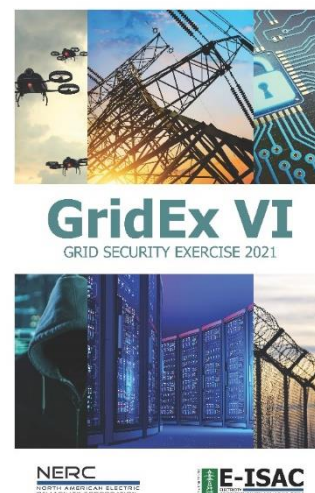
To address challenges to public information and warning, Clear Path IX included a public affairs exercise discussing key misinformation and disinformation issues and social media best practices, a simulated *Unity of Message* coordination call, and simulated *Unity of Effort* coordination calls.

From a project management perspective, the CESER team opted for a distributed approach instead of the traditional two-day discussion-based exercise given the challenges of the ongoing pandemic. While multiple exercises conducted across three months brought coordination challenges, it did allow for significant participation from government and industry partners and afforded the opportunity to intently focus on specific targeted capabilities and areas for improvement. The refinement of the virtual engagement tools and the emphasis placed on the interactive engagement produced valuable and meaningful participation. For a second year, the standalone public affairs and communications activities received significant praise from participants and encouragement for more of these specific engagements.

The Clear Path IX After Action Report is available via the [DOE CESER Website](#).

Highlights from External Stakeholder Sponsored Exercises

GRID SECURITY EXERCISE (GRIDEX) VI: The CESER team supported the planning and development of both elements of GridEx VI – the two-day Distributed Play Exercise and the Executive TTX in November. The team provided development on key injects and input on the scenario and the exercise objectives. CESER staff participated in the Distributed Play exercise along with participants from the balancing authorities and other industry partners. During the Distributed Play portion of GridEx, DOE Public Affairs personnel worked on best practices for public communication and social media messaging efforts. Departmental leadership participated in the Executive TTX along with the Department’s General Counsel office. The exercise included a Media Conference portion where reporters could ask senior government officials questions in an open forum. This TTX engaged senior industry and government leaders in a comprehensive discussion of United States and Canadian security issues as well as the extraordinary operational measures and coordinated decisions necessary to protect and restore the grid.



Conclusion

Exercises are a critical component of national preparedness and provide an opportunity for continued learning, improvement, and strengthening of resilience. The 2021 exercises that were planned, conducted, evaluated, and supported by the ESE Program contributed to achieving the commitment the department has made regarding preparedness and resiliency of the Nation’s energy sector. The continuance of the global pandemic and its impact on preparedness exercises was challenging, however the continued adaptive and

innovative use of virtual tools provided participants with more engaging and focused discussions. The efficiency, effectiveness, and economics of incorporating virtual tools and conducting virtual exercises can be expected as a standard option for planners into the future.

The CESER team continued their experimental use of multiple virtual platforms and collaborative tools to conduct planning meetings and exercises. WebEx and Microsoft Teams continued to work well as primary means of collaboration and allowed participants the opportunity to provide real-time feedback. The exercise team discovered that some organizations may have a preference on virtual systems while some organizations may be limited due to technical requirements. Continued engagement with partners throughout the exercise planning process will help mitigate technology challenges for future exercises.

The CESER team increased their focus on non-traditional topics such as the use of social media in incident response. The discussions emphasized the importance for energy sector organizations to train staff and implement strategies to lessen the impact of misinformation and disinformation campaigns, a common reality on social media platforms, especially during an incident.

While 2022 may see the return of in-person exercises, the evolution of virtual and distributed exercises has demonstrated a viable and valuable option for exercise conduct. Trends expected in 2022 will include increased engagement with the Canadian government and industry counterparts and exercises that address increasingly applicable topics such as energy justice and climate adaptation and resilience.

2022 ESE Program Strategic Vision

OVERVIEW

The 2022 Strategic Vision for the ESE Program will build upon the continued success of virtual exercises while cautiously exploring the possibilities of hybrid virtual/in-person and fully in-person exercises throughout the year, pending the ongoing pandemic. In addition to sponsoring and supporting existing exercises, the CESER team is proposing more quick turnaround exercises for CESER leadership to address emerging threats and hazards and validate existing plans, policies, and procedures. The CESER team will continue to collaborate with external partners and stakeholders to ensure strong participation by the department in identified industry, international, SLTT, federal interagency, and NSC sponsored exercises.

DEPARTMENTAL AND CESER SPONSORED EXERCISES

The ESE Program will sponsor two larger exercises in 2022 to include Clear Path X (Spring 2022) focusing on the response to multiple regional severe weather hazards and Liberty Eclipse 2022 (October-November 2022) focusing on a hands-on cyber detection and incident response effort.

EXTERNAL STAKEHOLDER SPONSORED EXERCISES

The CESER team will continue to support departmental participation in industry, international, SLTT, federal interagency, and NSC sponsored exercises to include, National Level Exercise (NLE) 2022 and Natural Resources Canada's (NRCan) Energy Command 2022. The team will also support planning activities throughout 2022 for exercises with scheduled conduct in 2023 and 2024, including the biennial GridEx (2023) events, and the NLE 2024.

CONCLUSION

The CESER team looks forward to a productive 2022 by sponsoring and supporting exercises, developing new initiatives, addressing emerging threats and hazards, and providing opportunities for departmental staff and leadership to assess and validate plans, policies, procedures, and capabilities in support of the department's critical missions.

