


Remote Management of Energy Delivery System Experiments



An open access testbed for transitioning academic research to practice

A keystone to the successful transition of Cyber Resilient Energy Delivery Consortium (CREDC) research from concept to field deployment is the use of testbed resources to develop tools that put findings through a rigorous validation and verification process. While testbeds for energy delivery systems (EDS) exist in a variety of universities and national labs, they require the user to be physically present at the testbed with experiment configurations installed by testbed staff. This project leverages existing and proposed capabilities to realize a remotely accessible environment that supports tool development and evaluation. The research team provides near-seamless accessibility to testbed resources and the necessary visibility to manage and operate experiments remotely.

KEY TAKEAWAYS

- Operationalizes a remotely accessible testbed for research tool evaluation and validation
 - Enables the transition of energy security research into practice for critical infrastructure
 - Allows remote management and operation of ongoing and future experiments
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OUTCOME

This project delivers the first open access testbed for CREDC research. The efforts associated with this project will enhance capabilities and extend the usability of the Trustworthy Cyber Infrastructure for the Power Grid facility to support CREDC research.

PARTICIPANTS

ROLE



The CREDC performs multidisciplinary research and development that focuses on the cybersecurity of energy delivery systems. The central project goal is to create an ecosystem where research results lead directly to the development of applications and methodologies, which are then validated in realistic contexts.



Leads research, development, and testing

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CREDC Total Award Value: \$28,099,258

DOE Share: \$22,476,290

Cost Share: \$5,622,968

CYBERSECURITY FOR ENERGY DELIVERY SYSTEMS (CEDS)

CEDS projects are funded through DOE CESER, which aims to enhance the reliability and resilience of the nation's energy infrastructure by reducing the risk of energy disruptions due to cyberattacks.

Website: <https://www.energy.gov/ceser>

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