U.S. DEPARTMENT OF ENERGY | Office of Cybersecurity, Energy Security, and Emergency Response

CREDC: Cyber Resilient Energy Delivery Consortium

CREDC
CYBER RESILIENT ENERGY DELIVERY CONSORTIUM

Identify and perform cutting-edge research and development to increase the cybersecurity and resiliency of energy delivery systems

Cyber Resilient Energy Delivery Consortium (CREDC) engages university-based researchers and National Laboratories to perform multidisciplinary research and development (R&D) focusing on the resiliency and security of energy delivery systems (EDS). CREDC produces solutions that sustain critical EDS functions in the presence of disruptive events — such as cyberattacks, accidents, or errors — enabling power grids and oil and gas refinery and pipeline systems to detect and respond to such events so as to rapidly recover to full functionality. CREDC supports a broad portfolio of projects with significant and measurable sector impacts, involving industry partners early and often. Along with the Department of Energy (DOE), CREDC is co-funded by the Department of Homeland Security Science & Technology Directorate.

KEY TAKEAWAYS

- Establishes a self-sustaining consortium of universities and National Laboratories to support leading-edge research and development for energy resiliency and energy delivery system cybersecurity
- Develops, verifies, and validates high-impact solutions addressing cybersecurity and resiliency in energy delivery systems
- Facilitates workforce development to address long-term research needs across the energy sector

OUTCOME

By creating a self-sustaining consortium of research institutions and National Laboratories, CREDC builds a culture of security across the energy sector. CREDC creates an R&D ecosystem where research leads directly to the development and operationalization of applications and methodologies, which are further validated in realistic contexts. As an academic consortium, CREDC supports the goals of research excellence, education, and workforce development.

PARTICIPANTS	ROLE
ILLINOIS	Lead research institution; implements consortium funding and administration
Argonne NATIONAL LABORATORY Pacific Northwest NATIONAL LABORATORY	Laboratory partners for research, demonstration, and validation

University research institutions; lead sub-project R&D

Arizona State University
Old Dominion University
University of Houston
Dartmouth
Oregon State University
香港科技大學 The Hong Kong University of Science and Technology
Washington State University
Massachusetts Institute of Technology
Rutgers University
University of South Florida

CONTACT INFORMATION

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Period of Performance: October 2015 – May 2022

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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