


Education and Engagement (K-12 and Public Outreach)



Educational resources to expand public engagement and understanding of energy delivery system security

This project develops K-12 education curricula that focuses on engaging and informing students, their teachers, and their families about the importance of a modern and efficient energy delivery system. The team connects the science and engineering of cyber-physical devices with traditional school curriculum using hands-on and virtual interactive lessons and activities, and partners with other national curriculum endeavors to further its impact. CREDC Education also provides energy information to inform the public. The goal is to teach about the challenges of balancing energy costs and concerns about climate change and the environment, the effects of increasing amounts of renewable energy sources like wind and solar, and the increasing options for consumers to use energy efficiently and to use electronic devices to manage their energy consumption. CREDC Education offers a variety of workshops, seminars, and other learning opportunities for power and cyber professionals.

KEY TAKEAWAYS

- Creates interest in science, technology, engineering, and mathematics (STEM) disciplines and careers by linking researchers, educators, consumers, and students
 - Illustrates issues necessary for public acceptance of smart energy techniques
 - Develops interactive activities and lessons to encourage learning
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OUTCOME

This program develops and distributes educational resources that begin conversations about secure energy delivery. Students and educators will be better informed and equipped to communicate about the importance, opportunities, and challenges of a secure, modern energy delivery system.

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.



Lead institution; develops and distributes educational materials; connects researchers, students, and K-12 educators

CONTACT INFORMATION

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CREDC Period of Performance: October 2015 – May 2022

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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