

SC NEXUS for Advanced Resilient Energy

A Global Leader in Advanced Resilient Energy.

SC Nexus for Advanced Resilient Energy (SC NEXUS) is a federally designated Tech Hub by the United States Department of Commerce that is **accelerating energy innovation** by leveraging South Carolina's dynamic manufacturing resources and superior research capabilities to strengthen national security and economic competitiveness.



SC NEXUS

SC NEXUS Testbed Energy Network

Carolina Institute for Battery Innovation (CIBI)

A large stationary battery manufacturing pilot line built at the University of South Carolina is set to improve performance of battery energy storage systems and recycle used battery components, crucial for stabilizing the power grid and supporting renewable energy.

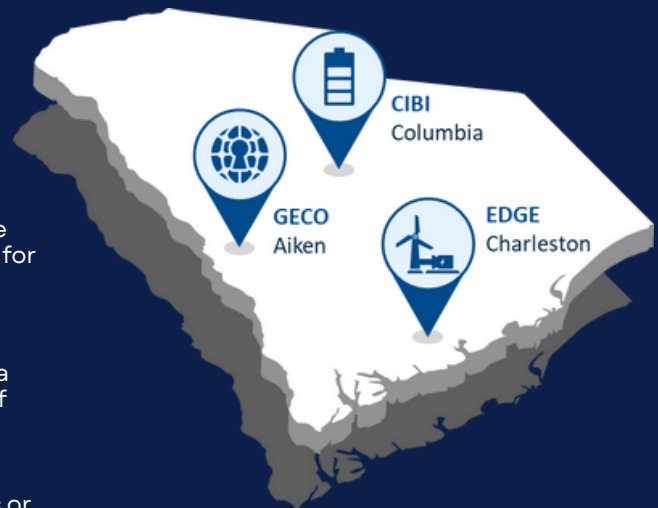
Economic Development through Grid Emulation (EDGE)

An upgrade of the North Charleston Electrical Grid Testing Facility led by Clemson University allows new technologies to be tested in real-world conditions, such as power distribution and grid management to determine effectiveness and regulatory standards compliance, making them reliable for widespread use.

Grid Enabled Cyber Operations Range (GECO)

Cybersecurity testing at the Savannah River National Laboratory provides a proving ground for new grid technologies and verify the full supply chain of new products to ensure a strong security posture before going to market.

By verifying the entire supply chain and conducting rigorous testing, vulnerabilities that could compromise energy systems, disrupt operations or threaten national security are prevented.



DEVELOP. TEST. DEPLOY.

In partnership with the University of South Carolina, Clemson University and the Savannah River National Laboratory, SC NEXUS testbeds provided a controlled environment where energy technologies can be developed, tested, and deployed for commercial use, helping the energy industry refine solutions, reduce barriers and drive results.

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Connecting with over **50 organizations**—including economic development groups, industry leaders, and researchers—collaboration efforts create market opportunities that accelerate innovation on a global scale, while supporting existing domestic assets and opportunities across the SC NEXUS energy ecosystem hub.

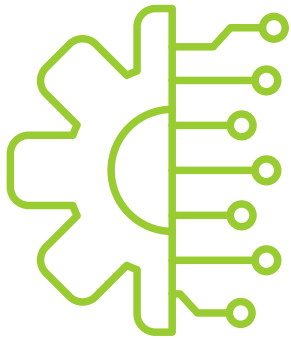
Lab to Market Solutions | **Federally Funded** | **Enhancing National Security**

Education Workforce Center (EWC)

Led by SC Technical College System, this project enhances awareness of South Carolina's energy- focused industries and job opportunities, identify, and develop the skills necessary for success in these roles.

The advanced energy economy is expected to create **14,000+** jobs in South Carolina by 2030 based on its current trajectory.

Entrepreneurship and Innovation Exchange (eiX)



Led by South Carolina Research Authority, this project provides comprehensive business, technical and hands-on training, leverage and connect assets of the existing entrepreneurship and innovation ecosystem across the SC Nexus hub to support growing startups.

SC NEXUS Projects:

- Drive advanced energy innovation.
- Provided inclusive pathways to new high-skilled jobs.
- Close infrastructure gaps in communities.
- Ensure continued access to a reliable supply of low-cost electricity.
- Strengthening the nation's economic competitiveness and national security.