



NSF GRID MODERNIZATION ENGINE IN THE CAROLINAS

What People Are Saying

"The NSF Grid Modernization Engine in the Carolinas represents an historic opportunity for North Carolina and South Carolina to build on our shared strengths and establish the Carolinas as a global leader in energy innovation," said Governor Josh Stein. "I look forward to watching this project fuel growth and fortify the domestic energy infrastructure essential to our national security." – *North Carolina Governor Josh Stein*

"A reliable and resilient energy supply is critical to South Carolina's continued success. This award will help strengthen our ability to meet future demand, support economic opportunity, and ensure the Carolinas remain leaders in innovation and job creation. We are proud to celebrate the partners who helped secure this award and grateful for the strong collaboration across the Carolinas that made it possible." – *South Carolina Governor Henry McMaster*

"This federal investment will allow UNC Charlotte to continue to bring together partners from across the Carolinas and ensure North Carolina remains a leader in research, manufacturing and industry partnerships critical to advancing the next generation of grid technologies." – *U.S. Rep. Richard Hudson, R-NC9*

"UNC Charlotte continues to show how higher education can drive innovation, workforce development, and economic growth for our region," said Congresswoman Alma S. Adams, Ph.D. "Modernizing the grid will require strong partnerships between education, industry, and government, and this effort would help prepare students across the Carolinas for careers in critical infrastructure, clean energy, and emerging technologies. I am proud to support work that keeps talent, opportunity, and innovation growing right here at home." – *U.S. Rep. Alma Adams, D-NC12*

"This NSF award comes at a pivotal time for North Carolina as we face increasing demands on our energy systems and other infrastructure networks that are foundational to our economy," said North Carolina Commerce Secretary Lee Lilley. "This investment aligns with North Carolina's First in Opportunity Strategic Economic Development Plan, by creating new high-paying jobs and opportunities for economic mobility and helping ensure that our infrastructure, workforce systems, and communities have the capacity to



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sustainably support that growth and distribute its benefits more broadly.” – *North Carolina Commerce Secretary Lee Lilley*

"The announcement of the NSF Grid Modernization Engine in the Carolinas as one of the elite NSF Regional Innovation Engines is more than a recognition of technical excellence, it is a validation of the strategic investments made by the federal government, the state of South Carolina and industry partners to strengthen our energy future. Building on the foundation established through SC NEXUS and our state's world-class energy assets, this effort positions the Carolinas as a national leader in grid modernization, energy resilience, workforce development and innovation." – *South Carolina Commerce Secretary Harry Lightsey*

Duke Energy has a proud legacy of advancing research, innovation, and workforce development through partnerships like our ongoing collaboration with UNC Charlotte. The NSF Grid Modernization Engine in the Carolinas will enhance testing environments, technical expertise, and infrastructure, ensuring we deliver a smarter, more resilient grid for our communities. Strengthening our grid through innovation is essential to powering the Carolinas' future as we remain laser focused on delivering dependable energy at the lowest cost possible for every customer. – *Harry Sideris, CEO, Duke Energy*

“Meeting the escalating demand for power requires modern energy systems to rely increasingly on technologies that fuse physical infrastructure with intelligent automation and digital capabilities. Honeywell’s partnership with UNC Charlotte and the NSF Grid Modernization Engine in the Carolinas reflects our focus on connecting research, talent development and technology deployment to help address these challenges. Today's NSF award accelerates this mission, helping us build the complex energy infrastructure the world requires.” – *Vimal Kapur, Chairman and CEO, Honeywell Technologies*

“Building a more resilient electric grid depends on accelerating how we test, validate, and deploy new technologies. At Siemens Energy, we bring together grid technologies, digitalization, and project execution to shorten that cycle—from innovation to energization. The Carolinas Engine for Grid Modernization supports the kind of applied research and technology development needed to modernize transmission infrastructure



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and enable faster, more reliable delivery.” – *Matt Neal, President of Siemens Energy North America*

“Access to reliable, affordable energy is a key factor in manufacturing competitiveness. With electricity demand growing, modernizing the transmission grid will be vital for future economic growth. As North America’s largest steel producer, and a large energy consumer, Nucor is proud to be a partner in the NSF Grid Modernization Engine in the Carolinas project to ensure we continue to deliver the energy that manufacturers need to grow and be competitive.” – *Leon Topalian, Chair and Chief Executive Officer, Nucor*

“Electric utilities are balancing growing demand and facing changing customer expectations while adapting to an increasingly complex energy system. Efforts that strengthen grid infrastructure and support investments in innovative technology will play an important role for the communities we serve not just for today, but for generations to come.” – *Daniel Kassis, VP Customer Relations and Renewables, Dominion Energy*

“Modernizing the electric grid requires technologies that can perform outside the laboratory and within real operating environments. The NSF Grid Modernization Engine in the Carolinas will help grid-technology startups better achieve success by helping them to develop to the stringent requirements demanded by utility customers.” – *Arshad Mansoor, President and CEO, EPRI*

“This award reflects what is possible when the public and private sectors and communities come together around a shared challenge and shared opportunity,” said UNC Charlotte Chancellor Sharon L. Gaber. “The Carolinas have built the partnerships, research capability and infrastructure needed to move grid technologies from concept to deployment, and few regions are better positioned to lead that work than Charlotte, where connections across North and South Carolina create a natural gateway for collaboration and innovation. UNC Charlotte is proud to help bring those efforts together.” – *Sharon L. Gaber, Chancellor, UNC Charlotte*

“The state-of-the-art Dominion Energy Innovation Center at Clemson’s Charleston Innovation Campus boasts the infrastructure, technical expertise and testing capabilities needed to address complex energy challenges and innovate the next generation of grid technologies. We are an eager partner with the NSF Grid Modernization Engine in the



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Carolinas to strengthen those capabilities while supporting the applied research necessary to advance modern energy systems.” – *J. Cole Smith, Executive Vice President for Academic Affairs and Provost, Clemson University*

“The most powerful technologies create value when they move from the lab into the marketplace, which is why the NSF Grid Modernization Engine in the Carolinas is focused on building the bridges that carry promising innovations into real-world deployment,” said SCRA President and CEO Bill Kirkland. “By aligning the strategic interests of industry, utilities, and innovators, we are accelerating commercialization of grid solutions—strengthening reliability, resilience, and the region’s economic competitiveness while supporting the companies and industries that depend on continued innovation.” – *Bill Kirkland, CEO, SCRA*

“Modernizing energy infrastructure requires more than technology development. It requires a workforce prepared to build, deploy and maintain increasingly complex energy systems. The NSF Grid Modernization Engine in the Carolinas strengthens connections among education, workforce development and industry while helping prepare talent for the rapidly changing energy economy.” – *Tina Taylor, Interim President, E4 Carolinas*

“A modernized energy grid requires more than new technology; it also requires a workforce prepared to power it. Through the NSF Grid Modernization Engine in the Carolinas, York Technical College is developing the talent pipeline through hands-on training and career pathways that connect students to high-demand opportunities across the Carolinas.” – *Stacey Moore, President, York Technical College*

“Many of the technologies needed to modernize energy infrastructure will come from entrepreneurs and emerging companies working to solve complex problems in new ways. The NSF Grid Modernization Engine in the Carolinas strengthens the environment needed to help promising technologies move from early-stage ideas toward scalable solutions.” – *Ryan Rutledge, Executive Director, Joules Accelerator*

The technologies that will strengthen America's critical infrastructure cannot remain in the laboratory. They must be tested, validated and transitioned into real-world deployment. The NSF Grid Modernization Engine in the Carolinas brings together the



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partners needed to accelerate that process while strengthening the nation's security, economic competitiveness and technological advantage. – *David Gorsich, Chief Scientist for Ground Vehicle Systems, U.S. Army*