GRID RESILIENCE AND INNOVATION PARTNERSHIPS PROGRAM

ENABLING EASTERN NORTH CAROLINA'S FUTURE THROUGH ADVANCED RECONDUCTORING

Established by the Bipartisan Infrastructure Law, the Grid Resilience and Innovation Partnerships (GRIP) Program is a $10.5 billion investment to enhance grid flexibility, improve the resilience of the power system against extreme weather, and ensure American communities have access to affordable, reliable, electricity when and where they need it. GRIP funding is administered by the U.S. Department of Energy's Grid Deployment Office (GDO). This project was selected through the second round of GRIP funding.

The North Carolina Department of Environmental Quality and State Energy Office, in partnership with Duke Energy, will implement advanced transmission technology to meet growing electricity demand in eastern North Carolina and improve reliability. The North Carolina Innovative Transmission Rebuild project will reconstruct the Lee-Milburnie 230 kV transmission line, incorporating high-temperature, low-sag advanced conductors and monopole steel structures that will enhance resilience and reliability within the existing right of way.

Anticipated Outcomes and Benefits

Reduced customer interruptions: 14,000 utility customers, who live in an area susceptible to the impacts of hurricanes and strong storms, will see an estimated 10% reduction in the length of service interruptions.

Preparing for growth: Increased line capacity will support 1,600 MW of solar and 260 MW of energy storage, readying the grid for the anticipated load growth in the area. The support structures will also be designed to accommodate another line, paving the way for even more capacity in the future.

Optimized right-of-way: Rebuilding the transmission line in place—utilizing the existing right of way—will minimize the impact to communities during construction and will cost less than a new greenfield transmission line.

New jobs and workforce training: The project will create 550 new positions that can be filled through partnerships with Historically Black Colleges and Universities (HBCUs) and local community colleges. The project also dedicates more than $3 million to workforce development and training.

Project Details

- **Project:** North Carolina Innovative Transmission Rebuild
- **Applicant/Selectee:** North Carolina Department of Environmental Quality and State Energy Office
- **GRIP Program:** Grid Innovation Program (Bipartisan Infrastructure Law, Section 40103(b))
- **Federal cost share:** $57,099,386
- **Recipient cost share:** $57,099,386
- **Project location:** North Carolina
- **Project type:** Transmission

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