

# Wildfire Assessment and Resilience for Networks (WARN) Subproject Grid Upgrade Plan

November 2024

---



## Consortium Member Information

Capital Electric Cooperative, headquartered in Bismarck, North Dakota, has been serving electricity to its consumer-owners in Burleigh and southern Sheridan counties since 1948. We take pride in being progressive yet friendly, service-oriented yet energy conscious. Capital Electric serves 19,000 member-owners, providing electrical service to more than 22,800 meters. We own more than 2,806 miles of distribution line to serve our consumers. Approximately 53% of those lines are buried cable.

Capital Electric is a member of a consortium of 38 electric co-ops and other rural utilities selected to receive federal funding through the Wildfire Assessment and Resilience for Networks project, or “WARN.”

## Project Description

This project will convert approximately 11 miles of a three-phase overhead distribution line to underground conductors. This work is being done to a key distribution feeder stretching across central Burleigh County that serves rural members and provides a critical back-feed source to two substations being fed by a radial transmission line. This effort is estimated to cost \$1.5 million.

## Benefits

The distribution line selected for this project is in a high wind corridor, susceptible to weather events that may cause downed lines. Capital Electric’s service territory is susceptible to rangeland fires, witnessing fires as recently as October 2024. By converting this line to underground, the overhead conductors’ potential ignition source can be eliminated. Reliability improvements are also realized by hardening a major tie-line between three rural substations, which collectively serve nearly a third of Capital Electric’s geographical service territory.

## Communities and Consumers Impacted

This project serves rural areas surrounding the communities of Wilton, Regan, Baldwin, and Wing, ND. Approximately 1,270 residents receive service from Capital Electric in this area, much of the area being remote agricultural areas. Capital Electric estimates 10 full-time equivalent contractors and staff will be working on this project over the course of the construction and retirement activities. Efforts will be made with local landowners to avoid impacts to agricultural activities (ex. planting/harvest, calving, haying).

*This material is based upon work supported by the U.S. Department of Energy’s Grid Deployment Office, Award Number DE-GD0000885.*



## Timeline

Capital Electric plans to complete installation of underground conductors and removal of overhead lines as soon as possible, beginning in 2025 and completing within two years. Contractors will plow cables wherever possible to reduce costs, boring roadways and high-impact areas as needed.

## Contact for More Information

Additional questions should be directed to:

Greg Owen

Manager of Engineering Services

701-712-7908

[grego@capitalelec.com](mailto:grego@capitalelec.com)