

# New Johnsonville 161/25:13kV Substation

## Meriwether Lewis Electric Cooperative



FISHER ARNOLD

### PROJECT EXPERIENCE

Fisher Arnold prepared construction plans and specifications, provided construction management, and testing/commissioning for a complete \$5m rebuild of the New Johnsonville substation in Centerville, TN. We were charged with converting an existing 69/13KV two-transformer substation to a 161KV two-transformer substation to provide 13KV with a future conversion to 25KV. The station design included station yard expansion, two new 25MVA transformers, four current and two future distribution bays with feeder regulation, and a self-contained control house. Using SEL relays, a unique cross-tripping scheme was developed and programmed in each protection devices. We also provided all construction management and testing/commissioning for the station. The unique nature of this design called for the removal of half of the existing station, construction of half of the new station, transferring the load and repeating the process for the other half of the station. This was successfully done while maintaining load throughout the process.

