

CASE STUDY / GRID INVESTMENT PROGRAM MANAGEMENT

MANAGING AN ARRAY OF TARGETED IMPROVEMENT PROJECTS

Georgia Power is investing in projects across the state to improve the electrical grid's reliability and resiliency. The first phase includes upgrades to 1,700 miles of power lines — and all the permitting, stakeholder management and implementation support that comes with it.



DELIVERING CONSISTENT, EFFICIENT RESULTS ACROSS THE PROGRAM

Electric utility customers across the state will benefit from targeted investments in critical infrastructure.

PROJECT STATS

CLIENT Georgia Power

LOCATION Georgia



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1.7K MILES OF POWER LINES BEING UPGRADED

36 SUBSTATIONS BEING ENHANCED

CHALLENGE

Georgia Power has embarked upon a major multiyear grid investment initiative to help provide steadfast, resilient power to its customers statewide. The \$7.5 billion Grid Investment Plan will strengthen the electrical grid's reliability and resiliency, reducing the number and length of power outages.

A significant majority of the planned investment, beginning with a three-year first phase, will target distribution system improvements to increase the reliability of the circuits that would benefit most from investments. It is also investing in rebuilding or replacing aged transmission lines and substation equipment.

These are large-scale efforts. Georgia Power needed a partner to help coordinate the diverse elements of the plan and leverage efficiencies to help it achieve the plan's objectives.

SOLUTION

The utility selected Burns & McDonnell to provide program management and construction management services during the first phase of the plan. We have oversight of the three design-build contractors implementing the phased transmission and distribution projects, as well as a thirdparty logistics firm that was contracted to handle the materials needed for the \$1.3 billion first phase. We are also responsible for owner's engineering, project controls, permitting and environmental compliance, stakeholder engagement, real estate, outage coordination and more.

Targeted electrical distribution reliability improvements are a major component of this phase of the program. Many lines are being converted from overhead lines to underground, where they will be less susceptible to outages caused by trees contacting lines or vehicular collisions. Automated line devices are being installed to quickly isolate outages and minimize the number of customers affected when issues arise. We are adding connections to enable greater flexibility to reroute power in the event of an outage. Some lines are being relocated to improve their accessibility for repair crews, and other aging lines are being strengthened with material and technology upgrades.

At higher voltage levels, we are coordinating transmission improvements statewide, including proactive replacement of aging assets to reduce the risk of failures. Transmission line conductor is being replaced with modern materials to better withstand weather and aging. Additionally, at some electrical substations, we are managing targeted replacement of older major equipment, including circuit



breakers and transformers. At others containing significant quantities of aged equipment, the substations are being rebuilt.

The projects under the umbrella of the Grid Investment Plan are being tailored to each community based on current infrastructure and needs for investment. Project teams are coordinating with local stakeholders to maintain open communications, minimize disruptions, and provide safe implementations of upgrades and replacements.

RESULTS

Approximately 280,000 customers will benefit from the power system projects included in the first phase of the improvement program. Approximately 1,700 miles of power lines — both distribution and transmission — are being upgraded in this phase, along with 36 substations being enhanced. Stronger materials and reconfigured circuits will improve the reliability and enhance the redundancy of the system, resulting in fewer, smaller outages and better overall customer satisfaction.

Twenty months into the first phase, 2 million working hours already had been completed. More than 1,600 jobs had been created in the state as Georgia Power focuses on optimizing its service for electric utility customers.

The ongoing successes and lessons learned in implementing the Grid Investment Plan are expected to pay dividends in the form of establishing standards and benchmarks for future phases of program.

SERVING AS OWNER'S REPRESENTATIVE FOR:

- Permitting and
 environmental compliance
- Stakeholder engagement
- Real estate
- Project controls
- Outage coordination
- Project management
- Owner's engineering
- Procurement
- Construction



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