BURNS McDONNELL

PROJECT PROFILE

A Holistic Approach Helps Manage Interconnection Requests Efficiently

Managing the inflow of renewable generation interconnection applications was challenging a major utility. Proper planning, research, management of the engineering and construction of required interconnection facilities and associated network upgrades streamlined the process.

Challenge

Dominion Energy's goal to deliver clean renewable power and the state of Virginia's push to accelerate renewable energy objectives by enacting clean energy legislation have brought about an attractive market for solar and wind developers to invest in building in Dominion's footprint. These interconnection requests represent hundreds of projects that must be managed through each phase of the PJM Interconnection queue process: planning, engineering and procurement, construction, energization and closeout.

Project Stats

Client
Dominion Energy

Location
Virginia, West Virginia and North Carolina

REPORTS PROVIDED THROUGH EARLY 2023

380
PROJECT FEASIBILITY REPORTS

317
SYSTEM IMPACT REPORTS

123
FACILITY STUDY REPORTS

Solution

Dominion Energy selected Burns & McDonnell under a program management contract to maintain a single source of responsibility for its generator interconnection program. We are acting as a program and project manager for all proposed renewable (solar, wind and battery storage) interconnection projects on the Dominion transmission grid.

We established a team of specialists at the utility's office in Glen Allen, Virginia, and provided a core management group to closely coordinate with PJM, Dominion and the developers through the planning process, reliability studies, and oversight of the engineering, procurement and construction of the required interconnection facilities and associated network upgrades. The team is providing project management, project controls, reporting, transmission planning, outage sequencing, scoping, estimating and conceptual engineering services.

We are managing over 900 projects across Virginia, West Virginia and North Carolina with voltages ranging from 69-kV to 500-kV. Projects include transmission line upgrades, transmission substation upgrades, and greenfield transmission interconnection switchyards and tap lines. In light of Virginia's aggressive goal to achieve 100% clean power for the state by 2045, it is expected that the number of interconnection request projects from renewable energy developers will continue to grow.

Results

The program continues to support Dominion on active PJM interconnection queue projects. We have been able to help Dominion align efforts and manage the influx of interconnection requests in a holistic manner. Additionally, we have helped integrate efforts for material and outage planning, resource loading support, management of conceptual design efforts and standards implementation, and the overall execution of the interconnection process.

The program team has made immediate impacts in helping both Dominion and PJM achieve project and process goals. The team has been able to deliver selected annual incentive plan (AIP) projects on time and within budget for Dominion Energy for each of the past four years. The program has also helped both the utility and the regional transmission organization make significant improvements in meeting key performance indices (KPIs), more than doubling the on-time rate since 2018.

About Burns & McDonnell

Burns & McDonnell is a family of companies bringing together an unmatched team of engineers, construction and craft professionals, architects, and more to design and build our critical infrastructure. With an integrated construction and design mindset, we offer full-service capabilities. Founded in 1898 and working from dozens of offices globally, Burns & McDonnell is 100% employee-owned. For more information, visit **burnsmcd.com**.

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