Start-up of a New Transmission Company



Introduction

An independent transmission company sought to build, own, and operate transmission assets in Texas. The client's facilities would bring electricity from wind generation facilities in west Texas to load centers in north Texas.

ScottMadden was retained by the client to assist in the build-out of facilities, systems, organization, and operations and maintenance programs, including control centers and all supporting technology, in order to energize the first phase of transmission assets in 2012.

The Challenge

The client was a new entrant to the transmission market in Texas, and under the Texas Competitive Renewable Energy Zones (CREZ) program, they were awarded the right to construct 320 miles of 345 KV transmission lines and five new substations to enhance the transmission grid. In addition to building transmission lines and substations, the client sought to build primary and backup transmission control centers, establish procedures and business systems required to meet compliance requirements, build all technology systems (e.g., EMS/telecommunications), and hire and train all required staff.

Additionally, the client was a start-up company with very few employees. One of the biggest challenges they faced was having the right expertise and people to help build-out their operations. The client group was new to the corporation and early on had limited working relationships with the staff of the parent organization. Building bridges to subject matter experts at the parent company became key to this implementation.

ScottMadden was retained to assist with developing the operating strategy for the new control centers, developing project and staffing plans for the organization, and ultimately providing program management for the effort. Without our support, the client would have been challenged in meeting critical requirements associated with putting their first group of assets in service as planned.

How We Helped

ScottMadden's approach was structured around three phases: strategy development, implementation planning, and project execution.





ScottMadden conducted the initial strategy development phase—phase one—dedicated to assisting the client in defining strategies to support future state operations and arriving on their operating strategy. In six weeks, we assisted the client in making several important operating decisions such as location of data centers, control room operations, and organizational structure. This was followed by an eight-week high-level planning phase—phase two—focused on developing the plans required to support the strategies agreed in phase one.

Through the strategy development and implementation planning stages, ScottMadden worked to define implementation strategies and gain agreement from leadership early in the process. We developed six operating strategies, which were reviewed and vetted by the client prior to making their final decisions. We also established a structured forum for reviewing options, weighing pros/cons, and facilitating decisions with multiple stakeholders. We then developed high-level implementation plans for each work stream, providing important insight into the complexities of managing multiple and concurrent activities. This also enabled the team to identify key milestones and interdependencies across work streams.

The completion of each phase was marked by the preparation and review of a formal deliverable document, which highlighted ScottMadden's findings and recommendations. Output from the first two project phases provided the foundation for implementation execution.

ScottMadden then focused on the balance of the project, which was the execution of the plans. Our role was to provide program management and project oversight of implementation activities for the strategies we helped develop.

During the implementation execution phase, ScottMadden was responsible for program management and controls, working closely with the individual project teams to develop detailed implementation plans, ensure project milestones were met, manage cross-team communications, and address project issues and risks.

ScottMadden also assisted in establishing a formal project governance structure. Our team secured director level leadership and provided hands-on engagement with individual project teams. We managed this effort as a single program of work, creating a cohesive team environment. Following a regular meeting and project reporting cadence, we established effective communication channels for the teams and engaged resources that had access to parent company technical experts.

Technology and telecommunications were important areas of focus. ScottMadden worked with the client's technical staff to define functional requirements, ensuring the EMS/SCADA systems were aligned with business needs. Additionally, ScottMadden engaged the client's corporate compliance organization to develop a compliance program and supporting procedure documentation. This work was instrumental in the client's certification as a transmission operator by the North American Electric Reliability Corporation's (NERC) regional reliability entity.

Results

Early in the project, ScottMadden played an important role in evaluating alternatives, presenting a range of operational strategies for consideration. We worked with the client's leadership team to facilitate the decisions on the preferred strategy. Upon agreement, we conducted a more detailed analysis of that strategy, which included cost estimation and implementation plans to assist them from the initial stage to implementation and, ultimately, live operations.



Additionally, ScottMadden established a structured approach to project management, which allowed the client to leverage project management tools and processes. Through this effort, the client was certified as a transmission operator in Texas and has begun energizing transmission assets that are part of the CREZ.

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