

# Transmission & Generation Planning Services

Managers with transmission and generation planning and operations responsibilities are getting hit with the one-two punch of rapidly increasing workload with dwindling human resource availability. ERO compliance, the necessity of adding new infrastructure, increased operating complexity, loss of institutional knowledge through retirement... These factors and more are contributors to the situation. Quanta Technology offers a proven and dependable outsourcing option. Part of the Quanta Services group of companies, Quanta Technology experts can provide your organization with a range of solutions from expert and thorough analysis for your most complicated problems to the efficient execution of routine studies enabling you to direct your staff to more relevant work. Our service offerings are flexible so that they can be tailored to meet specific client objectives. These offerings include:



**Strategic Planning:** On-site assessment of our clients 10-year planning horizon including long term capital planning, proposed existing and future operating procedures. QT will provide a detailed report with strategic recommendations to reduce capital costs of our client's transmission system.

**Risk Assessment:** Identification of the initial set of existing transmission constraints, and analysis of the impact of those existing and future transmission constraints and upgrades. QT will then develop strategic recommendations for transmission deliverability from any existing or planned resource

**Wide Area Monitoring, Protection & Control:** Support for synchrophasor and other wide area measurement systems for enhancing transmission reliability and operating efficiency including WAMPAC system planning, system design & specification, implementation, applications development and support, and identification of best practices.

**Interconnection Studies:** Examination of generating assets and analysis of the interconnection status of those assets along with the transmission interconnection studies performed at each plant. Additionally, we can analyze a history of transmission service requests, transaction history from those assets and transmission line relief actions and provide recommendations for optimality and cost minimization.

**ERO Compliance:** Gap Analysis/ Compliance Roadmap, Process Design, Documentation Development, Critical Infrastructure Identification, Pre-Audit Review, Due Diligence Review of Self Audits and other tailored services to meet your ERO compliance needs.

**Training & Process Management:** The QT team can help create a process mapping guide to guide roles and responsibilities, precautions and limitation, equipment handling, procedures and documentation. Additionally, we can provide Engineering training on most applications.

**Load Growth Forecasting & Weather Derivatives:** QT can help build short and long term load forecast models using decision science tools such as Crystal Ball with the use of a Monte Carlo model. Our team can also build a financial model to help manage exposure to weather risk.

**Reliability Studies:** Our team of experts will look at our clients Generation System Adequacy and determine on average how long available capacity is likely to fall short of demand by doing a likelihood of failure study on the Loss of Load Expectation (LOLE) and accordingly make recommendations on System Reliability.

**Distribution Side Demand Response:** Our experts will help analyze and forecast our client's customer demand response and based on those forecasts help advise device and facility coordination for bulk system VAR optimization and generator re-dispatch for fuel savings.

**Economic Analysis/Expert Witness Testimony:** The QT team can come on site and provide prudence to help clients justify the economic benefits of capital and maintenance planning costs. We can also help in preparing expert witness testimony for similar issues.



**About Quanta Technology.** Quanta Technology LLC provides expert-based management and technical consulting for utilities, heavy industry, and related entities. It is a wholly-owned subsidiary of Quanta Services (NYSE: PWR). Quanta Services, employs about 18,000 people and is the largest contractor for the electric utility industry in North America.

For more information contact:

James Blackman  
Director of Business Development  
919-334-3044  
[jblackman@quanta-technology.com](mailto:jblackman@quanta-technology.com)