



POWER & ENERGY

Meeting the energy demands of today and
tomorrow.



guernsey

Guernsey has a long history in the performance of projects related to power and energy. ***Our understanding of and passion for the systems and facilities related to power generation, transmission, and distribution makes us a unique fit to assist this industry.*** Our team includes professionals who have previous experience working for electric utilities including investor-owned utilities and rural electric cooperatives. Services range from the study and design of power systems to providing valuable insight and assistance for water and environmental projects involving power facilities.

Power Supply Support

It is critical to provide reliable and sufficient power supply. We offer load forecasting and power supply planning to predict current and future resource needs more accurately. Studies include detailed power requirements, load forecasts, resource optimization, production cost modeling, assistance with wholesale power solicitations, proposal review, and contract negotiation. We are experienced in the SPP, ERCOT, PJM, SERC, WECC, MRO and FRCC reliability regions.

Power Engineering Design

We design the systems that enable power to reach communities where customers need it. **Guernsey** has been very involved with the design of transmission facilities and substations for decades. Initial studies required prior to design of new facilities are also offered through the services we provide, including site selection, alignment, protective relays, rights-of-way, and permitting. We have designed hundreds of transmission and substation facilities throughout the United States.

System Planning

Being responsible for existing and future assets is an important part of your business. The future requires a strategy and plan to economically serve your customer base while maintaining a high quality of service. Construction Work Plans, Long-Range Planning Studies and Sectionalizing Studies assist in ensuring projected goals are achieved. These activities may require additional support including analysis of water resources, environmental studies and assistance with disaster recovery activities (ice storms, tornadoes, earthquakes, flooding, etc.). We have years of experience in planning and providing a helping hand after a disaster occurs. In addition, we provide support services including staking, periodic work order inspections, make-ready surveys, arc flash studies, motor analysis, interconnection studies, and utility relocations.









Renewable Energy

Renewables, such as wind energy and solar energy, are becoming major attributes in the future of power generation. We have applicable experience in these areas involving strategic planning, site planning and layout, design services, and connecting to the grid.

Environmental Compliance

Maintaining environmental stewardship is a necessity. **Guernsey** provides the knowledge and tools needed to meet regulatory compliance requirements. Our services include environmental audits, National Environmental Policy Act (NEPA) planning, Phase I/II/III due diligence for property transactions, hazardous materials surveys, soil and groundwater investigations, biological/threatened & endangered species assessments, Storm Water Pollution Prevention Plans, and Spill Prevention Control and Countermeasure Plans. We also assist with clearances, responses, and coordination required with regulatory agencies related to permitting, consent orders, and notices of violation.





Electric Utility Analysis

For decades, we've developed thousands of cost-of-service studies, rate analyses, and financial models and have over 80 years of electric cooperative and public power experience. It's this well-rounded package of experience and understanding that gives utility managers and executive boards the utmost trust in our ability to insightfully analyze situations and make recommendations that get results.

Cyber Security

A solid security strategy takes more than software and an occasional checkup. You need a team of good guys who are trained to think like the bad guys. That's where our cyber security professionals come in. We have nationally-accredited information security experts whose sole focus is to help our clients meet their risk management goals and compliance obligations using risk management, regulatory support, (NERC CIP, PCI-DSS, and HIPAA), security and vulnerability reviews, security monitoring, training and awareness, program audits and incident response planning.

Water Resources Optimization

Water is a valuable resource in the generation of power. We have provided key evaluations of water supply, distribution, and treatment systems relating to protection and sustainability. Our efforts have included analyses of groundwater availability and quality, surface water, internal distribution, reuse/reclamation, and water treatment. The goal is to provide the best possible evaluation of options to ensure an adequate and safe supply of water. Generating facilities are often sited near bodies of water in order to satisfy their cooling water needs. These facilities require frequent inspection by professionals; we assist in investigation of dam and water intake structures to ensure operational and maintenance practices are in place to protect the generating asset, downstream population, and the environment.

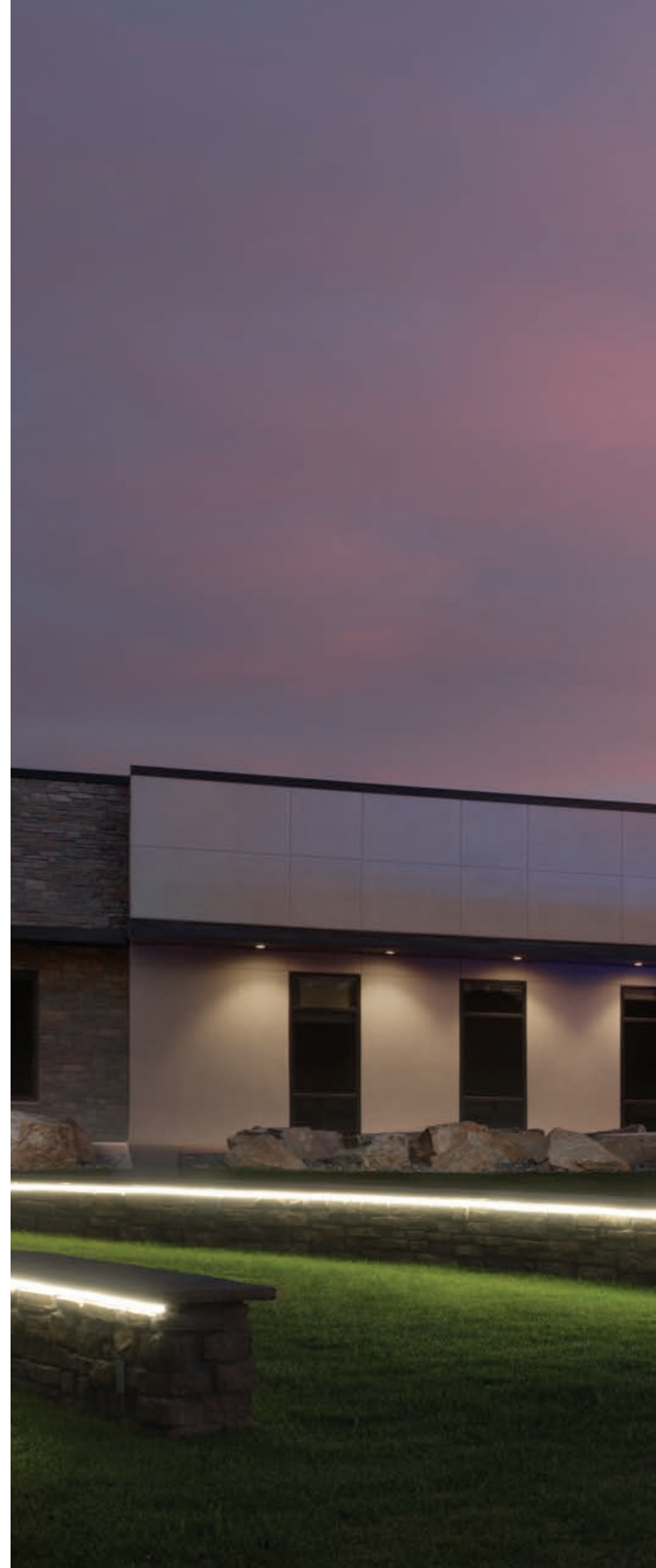
Regulatory Support

Our trusted advisors have a long history with regulatory matters and have represented our electric clients before state utility commissions and federal regulatory agencies, frequently providing expert witness testimony. We can help build compliance programs to address NERC Reliability Standards, including annual reviews, documentation assistance, and audit support.

Vertical Construction

We help you solve operational and functional issues through creative design. Our team will work with your leadership to develop the appropriate design solutions for your schedule and budget. We understand that your facilities require certain spaces for effective operations and design for improved efficiencies. Your campus and facilities should be a reflection of your specific needs. We are dedicated to a collaborative design process to ensure the resulting renovations or new facilities serve you efficiently and effectively. During the facility design process, we will focus on your identified priorities from operations and adjacencies to system operation centers and maintenance.

All facility projects begin with an organization identifying a need for improved space. We can help you with everything from the creation of a new campus to the renovation of a purchased facility. We evaluate sites from many angles to help you make an informed decision regarding the viability of the location for your needs. Together, we can develop a road map to point you in the right direction.







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