

ELECTRIC COOPERATIVES

Playing an integral role in the electrification of rural America since 1936



We started with dirt roads and "grew up" with America's electric

cooperatives. Upon passage of the Rural Electrification Act of 1936, electric cooperative founders understood the need for top-tier engineering expertise available in rural America.

Guernsey founder, Curt Guernsey, Sr., combined engineering expertise with first-hand knowledge about rural Oklahoma life. Within months, **Guernsey** found itself working for many rural electric cooperatives, assisting them in spreading their facilities across the land and helping "light up" rural America.

Our mission is to enhance a utility's business operations. We know the industry from every possible angle and have earned a reputation as a trusted advisor for rural electric cooperatives across America. This deep industry understanding gives utility managers and cooperative boards the utmost confidence in our ability to provide thoughtful analysis and insightful recommendations.

Our support to the industry includes cost of service and rate studies, power supply planning, facility design, environmental studies, power engineering design, forecasting, infrastructure planning and design, physical and cyber security, and management consulting. Our multidisciplinary team offers an array of services that lead to the one goal that makes everyone happy: reliable electrical service at a reasonable rate.

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 and rural areas where customers need it. **Guernsey** has been very involved with the design of transmission 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 cooperative members 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 environmental issues 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.









Management Support

We provide special contract development and negotiation to help determine the specific needs of new members in terms of plant investment, power supply, and contract rates. We also provide in-house training in the development of revenue requirement, cost of service and rate design, line extension policy, financial forecasting, power supply issues, mergers and acquisitions, and NERC Reliability Standard requirements.

Cost of Service, Rates, and Financial Analysis

Useful cost of service studies and effective rate development plans require far more than a basic understanding of financial principles. We are recognized leaders with a thorough understanding of utility operations, managerial principles, and the competitive market. With the help of our professionals, rates can be set that will help recover costs, send appropriate pricing signals, and achieve financial goals.

Regulatory Support

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

Cyber Security

Security is an ever-increasing concern in all industries. We help make security decisions based on three types of evaluations: gap analysis, IT configuration analysis, and vulnerability analysis. Our experts will make recommendations based on the findings. We also provide monitoring, training and testing for these systems.









Renewable Energy

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

Smart Energy Source

Smart Energy Source is an energy services partnership formed by Oklahoma State University, **Guernsey**, Tri-County Electric Cooperative and Central Electric Cooperative that was developed to improve reliability and lower costs for cooperative members and the utility industry. Our role in this initiative has big benefits. We have access to the latest research and practices in the industry. Smart Energy Source is focused on assessing and implementing renewable energy, energy efficiency, and grid modernization projects.

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, Stormwater 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.

Water Resources Planning and Engineering

Some cooperatives maintain water systems to support facilities, while others have included water distribution in their portfolio of member services. We recognize the need for prudent water management for cooperatives whether it relates to your immediate operational needs, or the expansion of a cooperative's services in providing community water to customers. We are routinely involved in strategic planning, water supply planning, reuse/conservation, water system engineering, water and wastewater treatment, and permitting.





Facility Assessment

A facility assessment is a useful tool when presenting options to membership for decisions regarding the future of campus facilities. Routinely, our team begins by conducting a facility assessment. We do this by analyzing three components: property condition, functionality, and needs. We provide a report and recommendations based on the physical conditions of the facility, the efficiency of operational functions, and your current and future space needs.

Design Solutions

All cooperatives begin with a community of people sharing a common need. We help 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 members and facility needs. We solve operational and functional issues through creative design. Our team will work with cooperative leadership and members to develop the appropriate design solutions for your schedule and budget.

We understand that cooperative facilities require certain spaces for effective operations, and how the facility is perceived by the members is of utmost importance. Your campus and facilities should be a reflection of your cooperative's specific needs. We are dedicated to a collaborative design process to ensure the resulting renovations or facilities serve members efficiently and effectively. During the facility design process, we will focus on your identified priorities from operations and adjacencies to dispatch and maintenance.

Together, we can develop a road map to point you in the right direction.







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