



**GREAT SOUTHWESTERN  
CONSTRUCTION, INC.**

Great Southwestern Construction has a long history in the successful management and construction of electrical substations and switchyards, within the most challenging of conditions and environments.

Our suite of electrical construction services provides clients with quality staffing and resources, as well as the ability to mobilize experienced teams and equipment throughout the nation.



**SUBSTATION  
CAPABILITIES**



# CAPABILITIES

## CONSTRUCTION/INSTALLATION

Since 1977, Great Southwestern Construction has managed the construction and installation of these various substation elements related to new construction and upgrades:

- Surveying
- Grading and site preparation
- Foundations
- Fencing/surface rock
- Grounding
- Duct banks, oil containment systems, SWPPPs and site drainage systems
- Conduits
- Power cable
- Control cable
- Structural steel
- All types of high voltage equipment - circuit breakers, switches, transformers, etc.
- Reactors and capacitor banks
- Overhead cables and jumpers
- Static var compensator (SVC) systems
- Bus work, aluminum bus welding
- Control buildings
- AC/DC panels
- Relay and control systems
- Fault recording equipment
- Communications - fiber installation, splicing, SCADA, coaxial cable
- Restoration services
- Testing and commissioning
- Solutions for modernization of substation protection and control assets

## PRE-CONSTRUCTION

Our expertise in pre-construction services is based on years of industry experience, and the skills and knowledge of our pre-construction team. We offer the following services:

- Conceptual budgeting/estimating
- Multiple cost estimates at various stages of design
- Constructability reviews
- Schedule analysis
- Advance purchase of long lead items
- Construction optimization and value engineering
- Analysis and implementation of optimal pricing models

## MATERIALS MANAGEMENT

We offer flexible capabilities to best meet client needs and preferences. Our ability to plan and control material disbursement increases schedule adherence and cost-effectiveness. Our Quality Control team is involved with these efforts to ensure compliance with engineering/client standards and schedule/cost control for accurate reporting. We have corporate-wide alliances with material vendors for preferred pricing and service. Our experience and offerings include:

- Procurement
- Expediting
- Receipt inspection
- Spare part recommendations
- Materials witness testing
- Storage
- Security
- Tracking of lost or damaged equipment or materials

## PROJECT CONTROLS & REPORTING

The right combination of software management tools, proper initial project set-up, timely and accurate data input, continuous tracking of progress, a meaningful reporting structure, strong information management and corrective action plans are all integral elements in delivering successful project controls and reporting systems to clients. Elements include:

- Project-specific work and cost management plans
- Master schedule and budgeting
- Staffing plans
- Experienced/qualified project management/field personnel
- Project-specific communications plan
- Implementation and oversight of the following plans/programs: Health & Safety, Subcontracting, Equipment, Procurement, QA/QC
- Ability to provide a range of billing, reports, forecasts, accruals, etc.

## EPC

We provide complete Engineering, Procurement and Construction (EPC) services through strategic alliances with leading engineering companies, and offer all aspects of turnkey construction: project management, engineering, materials procurement, construction, permitting, and environmental services. Providing single-source capabilities offers opportunities to reduce job costs and improve schedule adherence for clients. A single point of contact for all job components leads to more effective project management, which provides the ideal vehicle for continuous improvement and helps ensure that cost/schedule commitments are met.

# PROJECTS

## ENVIRONMENTAL COMPLIANCE

Whether independently managing environmental programs or working with other entities directly responsible for environmental management, we expect employees to exercise the highest environmental standards to protect people and the environment and comply with applicable environmental and workplace safety laws and regulations. Elements include:

- Employee orientation and training
- Hazardous materials management
- Waste management
- Spill prevention control and countermeasure
- Storm water pollution prevention plans (SWPPP)
- Dust control
- Land preservation and restoration
- Work in environmentally sensitive areas –wetlands, tribal lands, archaeological/historical sites
- Wildlife and biological protection
- Responsible sourcing of materials
- Reporting, documentation and recordkeeping



Our depth and breadth of experience in substation construction allows us to successfully execute projects of all scopes and sizes. The following are representative large new construction and upgrade projects completed over the past decade:

### Magic Valley Wind Farm Substation and Collector System - TX

This EPC project included construction of the 138kV Magic Valley Substation including two 138kV and eight 34.5kV breakers, all related steel, bus conduits, grounding, foundations, cable trenching, a control building and site work. Also included was the construction of 250,000 circuit feet of a 34.5kV underground collector system.

### Missile Site 230/345kV Substation - CO

This greenfield substation included all site work on a new 35 acre pad, foundations, steel structures, bus work, grounding, pull boxes, cable trench, power and control cable, one 230/345kV step-up transformer, four 345kV circuit breakers, six 230kV circuit breakers, associated switches and metering units, two control buildings, finish rock, fencing, complete relay protection, controls, commissioning and communication.

### Red Hills Wind Farm Substation and Collection System - OK

This project included the construction of a new switching station and 230/34.5kV substation including foundations, ground grid, conduit, structural steel, a control building and commissioning. Also included was the construction of a 34.5kV collector system.

### Rugby Wind Farm Substation and Collector System - ND

This project included the construction of 6.5 miles of a 34.5kV overhead collector system, 168,000 square feet of a 34.5kV underground collector system and a new 230/34.5kV substation. The project scope also included foundations, grounding, switch gear, a reactor bank, bus and conduit. GSWC crews worked in extreme conditions on the remote location which included the installation of a capacitor bank in the substation during winter months.

More project examples listed on back...

## QA/QC

Our Quality Assurance/Quality Control (QA/QC) Program encompasses all project-related activities, including where applicable: constructability reviews, materials management and procurement, manufacturing, installation and construction, testing, and commissioning, as required. We ensure our program is compatible with contract requirements and provides for effective measures to ensure that all construction work and materials are in strict compliance with all applicable specifications and requirements. Program elements include:

- Procurement and procurement performance
- Document control
- Installation and construction
- Testing and commissioning

## FLEET

We own and operate one of the largest fleets of specialized electrical construction equipment in the United States. Since 1891, our parent company, MYR Group Inc. been an industry leader in the development of next-generation specialty equipment and are one of the few organizations that have the ability to continually invest in additional equipment and tooling to meet the anticipated demands of our clients. These capabilities allow us to efficiently deploy necessary resources to various projects and to perform multiple concurrent projects throughout the country.

# PROJECTS



## Cedar Point Substation - CO

Three EPC projects were associated with the overall construction and operation of Cedar Point 250 MW wind farm. Substation construction was completed for two new 230/34.5kV stations, Cedar Point East and Cedar Point West. Both stations included all engineering, procurement and civil site works, plus installation of foundations, steel and buswork, 230/34.5kV power transformer, 230kV circuit breakers, switches, capacitor banks, reactors, power factor compensation system, control buildings, relay & control panels, power and control cables plus testing and commissioning work. The project also included constructing the Missle Site 230kV Capacitor Switching Station consisting of installing breakers, switches, capacitor banks, power and control cable plus electrical testing.

## Yoakum Substation Addition - TX

This project involved the construction of a new 230kV addition to the Yoakum Substation that included the erection of a new control house, wreck out of all existing 230kV equipment and installation of associated foundations, conduit, cable, equipment and grounding.

## Pawnee Substation - CO

This project included the construction of the new Pawnee 345kV Substation including installation of electrical equipment, steel, ground grid, conduit, duct bank system, foundations, EEE, digital fault recorder, grading and civil work, terminating cables and testing.

## Williston 2 Substation Stage 01 - ND

This project included construction of the new 230/115kV Williston 2 Substation. The project scope included site work, foundations, fencing, grounding, steel structures, electrical equipment, some transmission construction work, and a site-built service building. As with the Rugby Wind Project constructed in North Dakota, the Williston 2 Substation project was completed in a remote location, which offered logistical challenges as well as extreme weather conditions. The project lasted nearly a year, with construction crews working through harsh winter conditions, with temperatures approaching -25 Degrees Fahrenheit on average during January and February.



COMPANIES:



GREAT SOUTHWESTERN  
CONSTRUCTION, INC.



Sturgeon  
ELECTRIC

