



ENGINEERING SERVICES AND SOLUTIONS



Look to our solutions experts for the best answers for your applications.

Werner Electric partners with industry leaders to provide you with dependable engineering services.

We can tailor solutions to fit the specific needs of your applications. Our product experts will guide you every step of the way.

Preventative and Predictive Maintenance



Substation Testing and Maintenance

Relay

Testing

Microprocessor
Electro-mechanical

Programming

Input Settings
Develop Settings
Develop Trip Equations

Repair

Replacement

One for One Replacement
Modernization and Upgrades

Transformer

Testing

Capacitance
Turns Ratio
Insulation Integrity
Insulating Fluid Analysis
Power Factor (Doble)
Sweep Frequency Response
Partial Discharge
Excitation

Repair

Insulating Fluid Purification and Replacement

Insulating Fluid Upgrade

Vacuum Filling

Distribution Equipment

Commissioning

Start Up

Preventative Maintenance

Cable Testing

Breakers

(Air, Vacuum, SF6, Oil)

Testing

Conduction Path Continuity
Insulation Integrity
Travel
Timing
Partial Discharge

Replacement

One for One Replacement
Modernization and Upgrades

Repair

Capacitor Banks

Testing

Installing

Specifying

Infrared Scanning

(Thermal Imaging)

Switch Gear

Transformers

Breakers

Panel Boards

Bus Duct

Motors

Pumps

Automatic Transfer Systems

Testing

Load and No-load testing

Breaker Testing

Controller

Modernization

Testing

- Timing
- Functional

Develop Settings

Replacement

One for One Replacement
Modernization and Upgrades

Partial Discharge Testing

(Predictive Diagnostics)

Transformer

Breaker

Switchgear

Cable

Generator

Test Standards

NETA

NEMA

NICET

Plant Life Extension



Custom Bus Fabrication

Cable Replacement

Add to Existing Gear Installations

Custom Bus Duct Connections

Custom Transformer Connections

Switchgear Expansion & Modification

Cell Conversions

Cell Upgrades

Breaker Upgrades

Bus Upgrades

Breaker Solutions

Medium Voltage

Vacuum Replacement Breakers

Vacuum Replacement Starters

Breaker to Starter Upgrades

Class 1 and Class 2 Breaker Reconditioning

Low Voltage

Breaker and Cell Replacement (LVAR)

Molded Case Breaker Upgrades

Trip Unit Upgrades

Communication Upgrades

Class 1 and Class 2 Breaker Reconditioning

Emergency Services



Resources Throughout the Nation - Ready to Respond 24 Hours a Day

Power Restoration

- Onsite Repair or Replacement
 - Bus
 - Bus Duct
 - Breaker
 - Switchgear

Parts and Equipment

Extensive Nationwide Parts Network
Many Parts and Supplies Supplied Locally

Crisis Response

Nationwide Presence with over 700 Field Resources
Mobile Support Equipment Available to Mobilize Quickly



Safety Solutions



Arc Flash Mitigation Solutions

Arc Flash Mitigation Solutions

- Arc Flash Reduction Breaker Solutions
- Customer Protection Schemes
- Switch to Breaker Conversions

Remote Breaker Racking Solutions

- Low Voltage
- Medium Voltage

Remote Breaker Operation Solutions

Training

- Electrical Safety
- Arc Flash Safety

System Analysis and Design



Micro Grid Solutions

Failure Analysis

- Breaker
- Switchgear
- Transformer
- Voltage Regulators

Design

- Protection
- Control
- Distribution System

Automation

- Power Monitoring Systems
- Power Quality and Energy Management Systems
- Control Systems / Power System Automation
- Programmable Logic Controller
- Automatic Transfer Schemes

Engineering Analysis

- Grounding and Ground Grid
- Harmonic
- Power Quality
- Bus Bracing

Engineering Analysis (continued)

- Coordination
- Arc Flash
- Load Flow
- Short Circuit
- Power Factor Correction
- Motor Starting
- Transient Stability
- Switching Transient
- Distribution Systems Reliability

Integrated Project Solutions



New Substation Design and Construction

- Civil, Electrical, and Mechanical Engineering
- Prime Contractor
 - Project Management
 - Subcontractor Management
- Specification Development



A collage of images showing industrial workers in a refinery. The main image shows two workers in blue uniforms and white hard hats, one holding a clipboard. Smaller inset images show other workers in various industrial settings.

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WERNER
ELECTRIC SUPPLY

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