

ELECTRICAL FIELD SERVICES



EXPANSEELECTRICAL.COM

Ensure the Reliability, Efficiency and Security of Your EHV, HV, MV and LV Electrical Systems with Expanse

Whether designed for Utility, Industrial, Oil & Gas, Renewable or Commercial use, electrical systems must deliver:

- 1 SAFETY & RELIABILITY
- 2 AVAILABILITY
- 3 MAINTAINABILITY
- 4 SECURITY

Expanse offers a wide range of testing procedures and services to ensure each of these critical outcomes for both new operative systems and existing equipment in EHV, HV, MV and LV electrical systems.



The Expanse Advantage

- Turnkey Services
- In-Depth Understanding of Codes & Compliance
- Extensive Inventory of Test Equipment
- Lifecycle Support for All Electrical System Active Parts
- 24 Hour Call-Out and Repair Services

ACCEPTANCE TESTING & COMMISSIONING

Our acceptance testing, commissioning and start-up services ensure new equipment and systems meet specification and operational requirements. They also establish a base line for future reference.

MAINTENANCE PLANNING & TESTING PROGRAMS

We provide maintenance testing and maintenance testing programs to verify the integrity and security of existing systems and equipment and correct issues before they impact your HV, MV and LV electrical equipment and substation operations.

COMMUNICATION NETWORKING & AUTOMATION

Our automation systems, with built-in alerts and system controls, enable faster response to problems and increased efficiency of resources through the active monitoring and control of your systems and processes.

Capabilities & Solutions

ACCEPTANCE TESTING & COMMISSIONING

- Infrared thermography
- Power transformers & GSU transformers, including CCVTs, SSVTs, VTs and PTs
- EHV, HV, MV & LV circuit breakers
- Cable testing including AC/DC hi-pot, VLF, tan delta and partial discharge
- Power factor correction including cap banks, reactors, SVCs, power factor controllers
- Station batteries and UPS systems
- Protective relays and controls
- Station metering
- Transfer schemes
- Time travel analysis
- Power quality monitoring
- Insulation oil laboratory screen test including PCB and dissolved gas tests
- SWGR bus and bus duct inspection and testing
- Generator testing
- Grounding system survey
- HV, MV, and LV switchgear services
- Motor testing
- Oil processing for transformers and OCBs

- Power line carrier services
- Motors, controls and startup
- Generator P&C commissioning and startup
- NERC compliance testing
- Station transfer schemes
- Transformer assembly and vacuum filling
- SF6 breaker assembly and vacuum filling

MAINTENANCE PLANNING & TESTING PROGRAMS

- Annual, quarterly and monthly inspection of substations
- Substation battery inspections and maintenance
- Infrared surveys and analysis
- Oil and gas analysis and leak detection
- Substation apparatus testing including transformers, VTs, PTs, CCVTs and arresters
- Switchgear and buss duct inspection, cleaning and testing
- Protective relay testing and calibration including electro-mechanical, solid state and microprocessor
- Meter calibration
- Motor and generator testing
- EHV, HV, MV & LV circuit breaker testing

- Grounding systems including point to point, FOP and current injection testing and analysis
- HV, MV & LV cable testing and fault locating
- Digital fault recorder services
- Disturbance analysis
- Power line carrier tuner and line trap
- High voltage transformer load tap changer repair
- High voltage transformer leak repairs/re-gasketing
- High voltage transformer bushing replacement
- Insulating oil degasification and processing

COMMUNICATION NETWORKING & AUTOMATION

- HMI/SCADA/RTU commissioning and trouble shooting
- Power management
- Microwave radio communication commissioning
- Under frequency and load shedding (UFLS)
- Under voltage and load shedding (UVLS)
- Fiber optic splicing and terminations
- OTDR testing and analysis
- Fiber splice panel/box installations

Why Expanse?

- 24/7 Emergency Response
- 70 Years of Experience

- Turnkey Services & Solutions
- Experienced Craftsmen

- Local Expertise on National Scale
- Customer Support Across Geographical & Operational Spectrums

EXPANSE
ELECTRICAL CO.

NEW MEXICO
Carlsbad, NM

NORTH DAKOTA
Williston, ND

OKLAHOMA
Oklahoma City • Tulsa

TEXAS

Andrews • Big Spring • Houston
Midland • Odessa • San Angelo

FOR MORE INFORMATION

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