



# EXPERTS IN ELECTRICAL RELIABILITY

24 HOUR EMERGENCY SERVICE

## Field Services

- Electrical system trouble shooting and repair
- Plant shutdown services
- Preventive maintenance
- Low/medium/high voltage circuit breaker testing
- Ground fault testing
- Ground resistance testing
- Motor vibration analysis
- Motor surge comparison testing
- Variable speed drives testing
- Rotating apparatus testing
- Transfer switch testing

- Time travel analysis
- Insulating oil filtration
- Relay tests and calibration
- Meter calibration
- Infrared and ultrasonic detection
- Fiber optic testing
- Line disturbance analysis
- Harmonic and power quality measurements
- Voltage/load recording
- Load bank testing
- Magnetic field (EMF) testing and mitigation
- Insulation resistance testing
- Doble power factor testing

- Impedance testing
- Turns ratio testing
- Insulating fluid sampling and analysis
- Insulating fluid filtration
- Transformer vacuum filling and commissioning
- Transformer repair and maintenance
- Enerscan™
- Cable fault location
- Online partial discharge testing
- High potential testing
- Communication cable testing
- Arc Flash assessments

## Engineering and Consultation

### ENGINEERING STUDIES

- Short circuit studies
- Coordination studies
- Load flow analysis
- Transient stability studies
- Arc flash studies
- Harmonic studies
- Power factor analysis
- Grounding studies
- Voltage imbalance/regulation studies
- Power system reliability studies
- Reliability centered maintenance studies (RCM)

### ENGINEERING SERVICES

- Substation design/build services
- Project management services
- Maintenance planning and program development
- Shutdown planning and management
- Reliability based maintenance
- Process instrumentation calibration

### LIFE-EXTENSION SERVICES

- Modernization of outdated and underrated equipment
- Circuit breaker retrofit/rebuild (static trip, vacuum, oil, SF<sub>6</sub>) of low/medium voltage equipment
- Fused switches, retrofit of low/medium voltage
- Static exciter retrofit
- Solid state protective relay retrofit
- Automatic transfer switch retrofit and upgrades
- Replacement parts

## Equipment Startup

- Installation, startup and commissioning
- Acceptance testing
- Commissioning plan development
- Performance baselining
- Code compliance evaluation

## Predictive Maintenance

- Oil analysis
- Thermography
- Ultrasonics
- Online partial discharge testing

## Education and Certification

- Skills assessment/development planning
- Onsite and classroom courses
- Computer-based and self-paced learning
- Certification to recognized industry standards

## Assets Served

- Generating stations, substations
- Transformers, PDUs
- Switchgear, circuit breakers, panelboards
- Relays, meters, protective devices
- Drives, motors, starters
- Transmission, distribution and DC systems
- UPS, batteries, generators, automatic transfer switches

- Cables
- Grounding

How do you define your current challenge? Are you facing the daunting task of starting up a new facility? Or perhaps you're looking for innovative methods to maximize the performance of existing operations. Improving your facility's availability and performance are critical in achieving your business goals. Regardless of where you are in the lifecycle of your operation, the reliability of your electrical equipment plays a key role in determining your success.

As part of Emerson we deliver world-class services and innovative technologies to increase the availability and performance of production assets. The result – improvements to your bottom line.

Properly installing, testing, and maintaining your equipment is a viable predictor of future performance. If your facility uses low, medium, or high voltage electrical equipment, consider the benefits of partnering with the company that pioneered electrical equipment testing. We partner with clients to provide long term support relationships that deliver the results you need.

Our combined resources comprise the leading independent electrical testing, maintenance, and engineering service company in the United States. With more than 40 years of experience, you can rely on us to exceed your electrical equipment performance goals. From testing for weak spots that could disable your system, to complete project execution, we are your single source solution.

For additional information on how Emerson can help you increase the availability and performance of your electrical assets, please call:

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