

Electrical Reliability Services

Field Services

- Electrical system trouble shooting and repair
- Preventive maintenance
- Low/medium/high voltage circuit breaker testing
- Insulation resistance testing
- Doble power factor testing
- High potential testing
- Cable fault location
- Ground fault testing
- Ground resistance testing
- Motor surge comparison testing
- Communication cable testing
- Variable speed drives testing
- Rotating apparatus testing
- Transfer switch testing
- Sweep testing
- Time travel analysis
- Insulating oil filtration
- Transformer vacuum filling and commissioning
- 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

Predictive Maintenance

- Oil analysis
- Infrared / Thermography
- Ultrasonics
- Partial Discharge Testing and Monitoring Solutions
- Online resistance testing

Equipment Startup

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

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

Engineering Services

- **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)
- **Life-Extension Services**
 - Modernization of outdated and under-rated equipment
 - Circuit breaker retrofit/rebuild (static trip, vacuum, SF6) of low/medium voltage equipment
 - Fused switches, retrofit of low/medium voltage
 - Oil circuit breaker and oil cut-put overhaul
 - Static exciter retrofit
 - Solid state protective relay retrofit
 - Automatic transfer switch retrofit and upgrades
 - Replacement parts
- Energy Management Services
- Project management services
- Maintenance planning and program development
- Smart Turnaround planning and implementation
- Emergency Response services

Education and Certification

- Performance Solutions
- Onsite and classroom courses
- Computer-based and self-paced learning
- Certification to recognized industry standards

Electrical Reliability Services

Whether you're faced with the challenges of reliably starting up a new facility, maximizing the performance of existing operations or extending the life of an aging plant, Asset Optimization is critical to achieving your goals.

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

We partner with clients to provide long-term support relationships that deliver the results you need. Emerson's unique approach to Asset Optimization includes benchmarking, jointly formulating your plan and working with you to implement it for maximum return.

We focus on those assets that are central to achieving your production goals – mechanical equipment, electrical systems, process equipment, instruments and valves.

Our 3,500 service professionals are experts in their fields and ready to serve your needs. With Emerson as your partner for Asset Optimization, you'll be on the path to realize the true potential of your production assets.

©2009 Emerson Process Management

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products or services at any time without notice.

All rights reserved. The Emerson logo is a trademark and service mark of Emerson Electric Company. All other marks are the property of their respective owners.

Emerson Process Management
Asset Optimization Division
Corporate Headquarters
8760 Orion Place, Suite 110
Columbus, Ohio 43240
Toll Free: 877.468.6384
Fax: 614.410.8500

www.assetweb.com/ers

