



# Switchgear Maintenance

As an essential part of your electric distribution system, switchgear is engineered to safely and reliably manage your power through complex sequencing. Ziegler Power Systems Advanced Electrical Services technicians meticulously care for every critical component of your switchgear and power distribution system to help prevent unexpected equipment failures.

Ziegler also provides switchgear acceptance testing on new equipment to ensure it functions properly and meets the specified requirements for its design.



## Switchgear Inspection, Maintenance, and Testing

- Clean and inspect physical and mechanical condition
- Determine accuracy of meters and calibrate as applicable
- Check anchorage, alignment, clearances, and grounding



## Switchgear Mode/Operation Testing

- Test the sequence of operation
- Run a complete functional test to verify correct operation
- Confirm all equipment corresponds with drawings and coordination

***Recommended maintenance frequency varies; contact Ziegler for more information.***

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### **Ziegler Preventive Maintenance Service** *Protect Your Power*

Ziegler Power Systems preventive maintenance service offers multi-year budget planning and delivers improved equipment reliability.

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#### **Shakopee, MN**

8050 County Road 101 East  
888.724.3053

#### **Altoona, IA**

1500 Ziegler Drive NW  
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# Protective Relay Maintenance

Properly functioning protective relays are crucial to the performance and safety of your critical power system. Ziegler Power Systems can help you protect your power with comprehensive protective relay inspection, maintenance, and testing.

Ziegler-certified Advanced Electrical Services technicians have experience with a variety of relays, including microprocessor, electromechanical, and solid state.

Our technicians will perform testing to manufacturer specifications, make necessary calibrations and adjustments, and verify that settings are in accordance with your coordination study. We'll validate all target functions and provide a comprehensive report.



## Microprocessor Relays



## Solid State Relays



## Electromechanical Relays

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## Infrared Thermography

Advanced Electrical Services from Ziegler Power Systems can help identify concerning hotspots and safety hazards by using infrared technology. Our certified thermographers can complete the testing without de-energizing your system.

### Infrared Thermography

-  Survey key components, including energized bus, load lugs, cable termination points, control cabinets, contactors, fuses, and control transfers
-  Provide comprehensive reports detailing deficient areas with photographs and recommended actions
-  Record temperature differences between troubling areas and a reference area
-  Recommended frequency: Every 12 – 24 months

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## Circuit Breaker Testing

Did you know that poor circuit breaker maintenance is the leading cause of unscheduled power outages? Ziegler Power Systems can help mitigate the risk of an unexpected failure and support the reliability of your critical power with low- and medium-voltage circuit breaker testing.

Testing and reporting by Ziegler-certified Advanced Electrical Services technicians is conducted in accordance with industry standards to ensure the proper operation of your circuit breakers.



### Low-Voltage Primary and Secondary Injection Testing

- Test under real conditions to validate trip settings and manufacturer specifications
- Operate, lubricate, and inspect for damage and deterioration
- Provide comprehensive reports detailing test results and condition of the circuit breaker
- Recommended frequency: Every 12 – 36 months



### Medium-Voltage Circuit Breaker Testing

- Test contact and insulation resistance
- Test vacuum bottle integrity
- Verify mechanical operation
- Lubricate current-carrying moving parts
- Recommended frequency: Every 24 – 36 months

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