



Testing, Maintenance & Repair Services

Capabilities List

Circuit Breakers:

Low Voltage

- Primary Current Injection
- Secondary Injection
- Contact Resistance
- Insulation Resistance
- Solid State Trip Unit Retrofits
- Repair/Remanufacture/Rebuild

Circuit Breakers:

Medium & High Voltage

- Contact Resistance (up to 100A)
- Time/Motion Analysis
- Oil/SF₆ Testing
- Functional
- Vacuum Bottle Integrity
- Insulation Power Factor
- Internal Inspections
- Repair

Instrumentation

- Electrical
- Process Controls
- RTD's/Thermocouples
- Calibration
- Functional
- Rescaling

Transformers

- Oil ASTM Tests
- Dissolved Gas in Oil Analysis
- PCB Analysis
- Turns Ratio
- Winding Resistance
- Dielectric Absorption/PI
- Insulation Power Factor
- Load Tap Changer Service
- Leak Testing & Repair
- Oil Reclamation

Protective Relays

- Functional Testing
- Calibration
- Power Line Carrier Testing
- Repair

Switches: Low, Medium & High Voltage

- Contact Resistance
- Insulation Resistance
- Functional
- Mechanical

SF₆ Services

- Reclamation
- Bottle Consolidation
- Gas Handling
- Leak Detection

Instrument Transformers

- Ratio & Polarity
- Insulation Resistance
- Burden/Saturation
- Insulation Power Factor

Cable Testing: Low, Medium & High Voltage

- Hipot—AC, DC, VLF
- Insulation Power Factor
- Dielectric Absorption
- Insulation Resistance
- Shield Continuity
- Cable & Fault Locating

Ground Systems

- Earth Resistivity Studies
- Grid Resistance Measurements
- GFI Calibration

Switchgear

- Thermoscan
- Functional
- Insulation Resistance
- Repair/Modifications/Rebuild

Rotating Equipment: Synchronous/Induction Generators & Motors

- Insulation Power Factor
- Dielectric Absorption/PI
- Load Testing
- Winding Resistance
- Voltage Regulator
- Shaft Discharge Analysis
- Magnetization Analysis
- Degaussing

Battery Systems

- AC Impedance Measurements
- DC Voltage Measurements
- Specific Gravity
- Load Testing (On-Line)
- Charger Calibration

Engineering Services

- Short Circuit & Coordination Studies
- Load Flow/Voltage Drop
- Harmonics Measurement
- Voltage Disturbance Analysis
- Arc Flash Studies
- Power Metering
- CAD/One Line Diagrams
- Multi-Year PM Programs
- Design/Build Services
- Commissioning & Start-Up Services
- Troubleshooting

NEW ENGLAND SALES REPRESENTATIVES FOR:

**Relay Test Systems
Transformer Test Sets
Circuit Breaker Analyzers**



**Battery Load Testers
Surge Arrestor Testers
Substation Test Systems**

Power Systems Specialists

190 Pleasant Street, Ashland, MA (508) 881-3911 Fax (508) 881-4814
2 Stone Ledge Drive, Lewiston, ME 04240 (800) 649-6314 Fax (207) 782-0162



THREE-C ELECTRICAL
COMPANY, INC.

Construction Services

Industrial, Institutional, Utility & Generation



Underground Distribution Systems

Duct, Conduit & Manhole Installation
Inspections, Maintenance & Repair
Cable Installation & Removal
Manhole/Vault Inspections



Aerial Distribution Systems

Pole & Structure Installation
Open & Spacer Cable Installation
Maintenance & Repair
System Grounding
System Layout & Design



Switchgear

Installation, Maintenance, Repair & Painting
Life Extension
Troubleshooting
Additions & Modifications
Modernization & Upgrades



Substation

Complete General Construction
Structure Erection & Bus Welding
Electrical Installation
Additions & Modifications
Troubleshooting
Maintenance & Repair



Transformers

Turnkey Retrofit
Maintenance, Repair & Painting
Installations
Emergency Change out



Medium Voltage Cable

Duct, Conduit & Manhole Installation
Splicing & Terminating to 115kV
PILC & Solid Dielectric
Fault Locating
Repair



Low Voltage Cable

Conduit Installation
Cable Installation



Power Factor Correction

Installation
Design & Metering



Digital Metering Systems

System Design
Installation - IED & Communications
Modifications
Software/Programming
Multiple Protocol Capabilities
SCADA
Troubleshooting
Technical Support & Maintenance



Turnkey Systems

Complete System Installation
Design/Build
Modernization & Upgrades



24-Hour Emergency Service

24 Hr Cable/Splicing Material to 35kV
National Network of Equipment /Parts

REPRESENTING



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Power Systems Specialists—24 Hour Emergency Service