

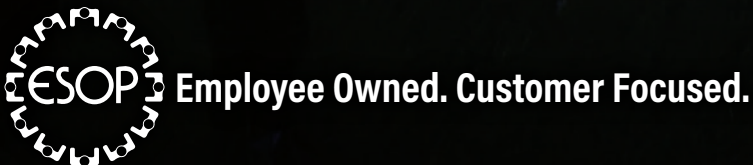


[www.wmeng.com](http://www.wmeng.com)



***Technology Leaders  
In Providing Electrical  
Testing & Commissioning  
Services***

**Our Engineering Team Specializes  
In Protection & Control (P&C)  
Programming, Integration & Testing**



***Electrical Testing &  
Commissioning***




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## ***Our Electrical Experts, Skilled In All P&C System Technologies including Digital IEC 61850 Intelligent Electronics, Deliver Reliable Power Systems***

Wunderlich-Malec's Electrical Testing Group (ETG) delivers electrical power systems that ensure safety, reliability and on-time completion. Our highly skilled and experienced personnel provide testing and commissioning services across electrical power systems—from medium-voltage distribution and high-voltage T&D substations to complex generation sites.

Our teams perform comprehensive P&C testing, including relay verification, scheme validation, automation and logic testing. We ensure seamless performance thru expert SCADA integration and IEC 61850 protocol verification (GOOSE and MMS). Our DC/AC schematic verification, substation apparatus testing, and Lead Commissioning Engineer (LCE) services ensure system functionality.

Backed by national capabilities and deep technical expertise, ETG is your partner in completing successful, high-performing power system projects.



### ***Employee Owners, Promise Consistent Exceptional Results***

As employee-owners, we take immense pride in the values that define our work: Versatility, Efficiency, Culture, Technical Expertise, and Reliability. These principles are the foundation of our processes, guiding every decision to ensure flawless execution on every project. We combine proven testing and commissioning expertise with in-depth design capabilities and advanced P&C programming knowledge.

**This integrated, cross-disciplinary approach allows us to anticipate challenges, and uncover issues before systems are placed in service. By delivering clear effective solutions we keep your projects on track and performing at their absolute best.**

### ***Project Success Begins With In-House Training Of Substation Skills***

We develop employees in our fabrication of Modular Integrated Control Enclosures (MICE) for utilities and generation plants. It provides a unique platform to train our young engineers and interns—ensuring we engage only the most capable, confident engineers.

**Our in-house hands-on experience in relay testing, P&C systems, and SCADA integration, produce real-world skills without risk to a client's site**



### ***Major US Industries Depend On Our Skills***

- **Utilities - Transmission & Distribution**
- **Data Centers**
- **Power Generation/Microgrids**
- **Municipalities**
- **Universities & College Campuses**
- **Renewables**
- **Commercial & Industrial Complexes**

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## The Wunderlich-Malec Electrical Testing Group Provides Services To A Wide Scope Of Electrical Power Distribution Systems & Technologies

Our national team is built to provide electrical testing and commissioning services to Utility Transmission and Distribution (T&D) and private microgrid substations. Our technical expertise, skills and advanced testing skills are also available for support to industrial and commercial clients.

### Turnkey Generation Solutions Ensure Project Success

Wunderlich-Malec's Electrical Testing Group (ETG) generation and microgrid expertise provides our clients complete solutions including design, integration and testing. We collaborate closely with our clients from start through project completion ensuring we execute successfully and meet their expectations.

#### GENERATION CAPABILITIES

- **Generator AVR Testing**
- **Sequential Tripping**
- **Synchronization**
- **Islanding**
- **Modes of Operation**
- **Paralleling**
- **Microgrids**
- **Advanced Distribution Controls - FLISR**

### Our Engineers Are Experienced In All Testing Services

Our extensive experience with P&C systems for different applications and various vendors allows us to provide:

- Advanced P&C and Automation Solutions
- Full IEC 61850 Architecture Development, Programming and Testing
- SCADA Integration & Commissioning
- Factory Acceptance Testing with Simulation
- Turnkey P&C and Automation Upgrades
- In-House Panel Fabrication.

#### TEST & COMMISSIONING SERVICES

- **IEC61850 Testing and Commissioning**
- **Protective Relay Testing**
- **RTU/HMI System Integration**
- **Lead Commissioning Engineering**
- **End to End Satellite Testing**
- **Substation Apparatus Testing**
- **Battery Bank / Charger Commissioning**
- **Medium Voltage Switchgear Testing**
- **Apparatus Equipment Testing**
- **SF6/Nitrogen Evacuation and Filling**

### Expertise Across All Major IED Platforms

Wunderlich-Malec brings comprehensive expertise to every project, thanks to extensive training and hands-on experience with the industry's leading Intelligent Electronic Device (IED) vendors. We deliver a wide range of system solutions.

#### WUNDERLICH-MALEC INTEGRATES PREMIER IED VENDORS INCLUDING:

- |                      |                    |
|----------------------|--------------------|
| • <b>ABB</b>         | • <b>MICOM</b>     |
| • <b>ALSTOM</b>      | • <b>SCHNEIDER</b> |
| • <b>BASLER</b>      | • <b>SEL</b>       |
| • <b>BECKWITH</b>    | • <b>SIEMENS</b>   |
| • <b>GE MULTILIN</b> | • <b>OTHERS</b>    |

### Delivering Long Term Customer Value with Focused Expertise

Our focus of specializing in the critical area of advanced protection and control solutions drives long term customer value. Partner with the Wunderlich-Malec's Electrical Testing Group (ETG) to ensure your immediate needs are achieved and we build a foundation for sustainable success.

**Electrical Testing & Commissioning**





Learn More



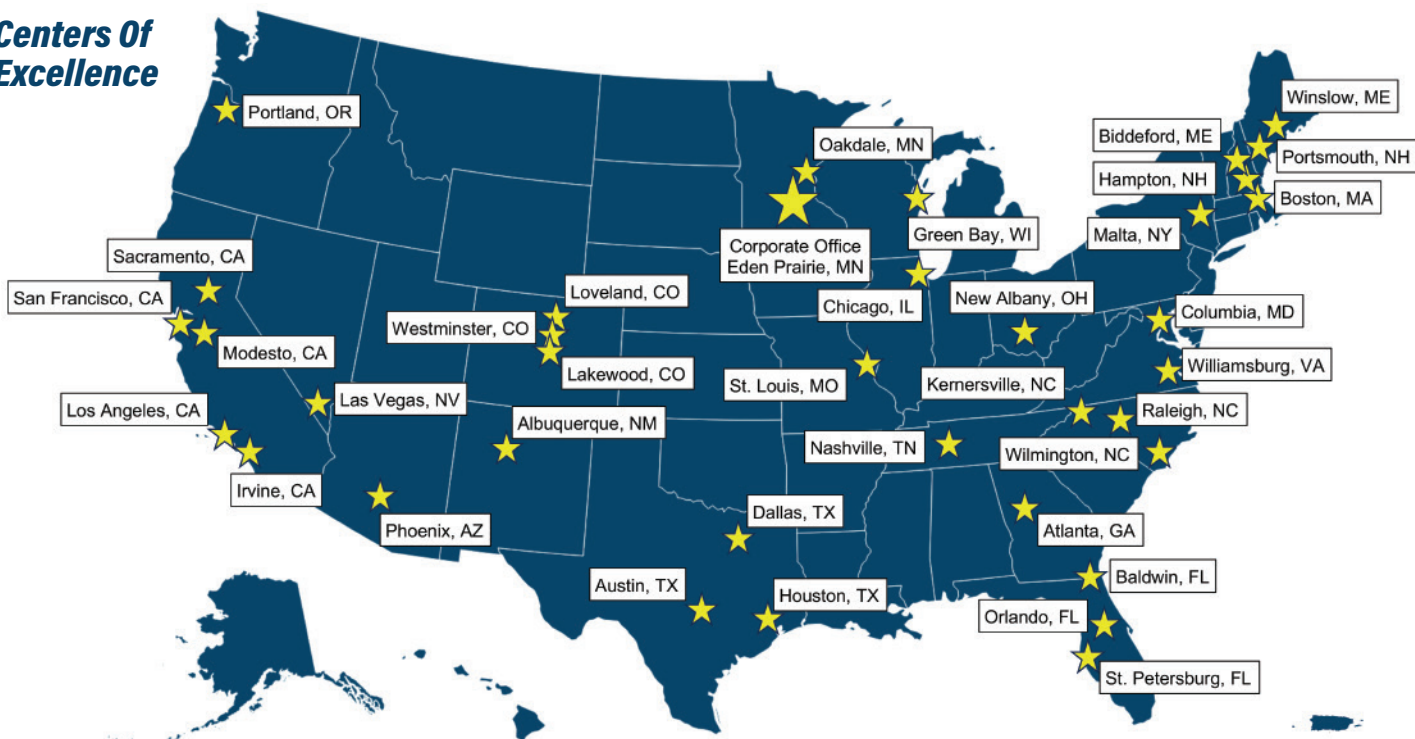
## Engineering Experience You Can Count On Since 1981

- **Control System Integration**
- **Manufacturing Execution Systems**
- **IT/OT Convergence Systems**
  - Industrial Foundation Networks
  - Cloud Based IIOT Applications
- **Panels & Modular Manufacturing**
  - Control Panel Fabrication
  - Substation Modular Enclosures
- **Rotating Equipment Control System**

- **Facilities Engineering**
  - Mechanical Designs
  - Process Engineering
  - Electrical Engineering
- **Electrical & Power Engineering**
  - Power Engineering for Substation T&D
  - Power Automation, Monitoring & SCADA
  - Electrical Testing & Commissioning

- **Architecture**
- **Civil Engineering**
- **Structural Engineering**
- **Federal A-E Design Service**
- **Design Packaging Solutions**
- **Environmental Information Systems**
- **Energy Sustainability & Microgrids**
- **Industrial Water Treatment**
- **Capital Project Management**

### Centers Of Excellence



### Our Alliance Partners



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Corporate Capabilities