Power Delivery Services

Expertise in end-to-end project lifecycle solutions.

HMI TECHNICAL SOLUTIONS®

A HENKELS & McCOY Group Company

Firm Capabilities

HMI and the firm's engineering experts at HMI Technical Solutions (HMITS) keep pace with advancing technologies in the dynamic electric utility industry. From medium and high voltage substation design and extra high voltage transmission to low voltage distribution and renewable energy projects, we understand the complexities of power engineering. Using a diligent project management approach, we have accomplished a wide variety of aerial, underground, distribution and transmission projects with a superior level of consistency, quality and most important, client satisfaction. Whether a client needs a high voltage transmission system designed or a new make-ready program established, we have the experience, skilled workforce, effective management, and the latest equipment and technology to safely and proficiently meet the challenge.

Transmission & Distribution Services

- Multi-discipline Engineering Design
- Grid Modernization Program Development and Execution
- Storm Hardening Programs
- Overhead to Underground Conversions
- Distribution Automation (DA) Studies and Implementation
- Overhead and Underground, Rebuild, Reconductor, and Green Field
- Highway Relocations
- Integrity Management/Corrosion Engineering
- Substation and Step-Down Eliminations
- Make-Ready Engineering/Pole Attachment
- Lightning Performance and Grounding Evaluations
- Right-of-Way (ROW) Surveys and Acquisition
- Permitting Support – Environmental, Municipal, State
- Co-occupancy Planning/Acquisition
- Construction Coordination
- Enterprise Asset Management
- Engineering, Procurement and Construction Support
- PJM Interconnect Support Services

Substation Services

- Multi-discipline Engineering Design
- Site Selection
- Substation Design
- Protective Relaying
- SCADA Systems/Automation
- Enterprise Asset Automation

Construction Support Services

- Procurement Support – Bills of Material, Bid Evaluations
- Construction Cost Estimates
- Construction Coordination
- Outage and Conversion Planning
- Constructability Reviews
- Coordination Studies

Power Services Capabilities Overview

FINANCIAL ANALYSIS
- Technical Audits
- Construction Progress Reviews

CONSULTATION AND STUDIES
- Owner's Engineer Services
- Technical and Economic Feasibility
- Site and Subsurface Investigations
- Permits and License Applications
- Environmental Impact Reports
- ROW Negotiation and Procurement
- DER Feasibility & Impact Studies
- PJM/DER Interconnection Planning

PRELIMINARY ENGINEERING
- Site Selection
- Criteria Preparation & Cost Estimates
- Conceptual Design Studies
- Environmental Studies
- Planning/Scheduling
- Long Lead Material Lists/ Requirements
- System Mapping and Assessment

ENGINEERING SITING SUPPORT
- Attendance at Public Meetings
- Line/Site Selection & Route Review
- Subsurface Utility Investigation
- Conceptual Line Design Studies & Analysis
- Technical & Economic Feasibility Review
- Preparation of Utility Commission Engineering DesignDocs
- Construction Access Identification, Review, and Assessment
- EMF Study & Calculations

LINE DESIGN SUPPORT
- LiDAR Data Modeling
- NERC Clearance Review Using PLS CADD & LiDAR with Least Impact Mitigation Determination
- Existing Steel & Wood Pole Analysis/ Modeling
- Existing Tower Analysis/Modeling

DISTRIBUTION DESIGN
- Capacity & Reliability Planning
- Joint Use Transmission & Distribution Design
- New UG Substation Getaway
- Installations
- New Circuit Creation and Planning Validation
- Line Reconductor/Rebuilds/ Voltage Conversion
- Line Relocations: Highway, Building Development, UG Utility Installation
- UG Network System Upgrades & Additions: Manhole/Vault/Splice Chamber Inspection, As-built Route Verification, Duct Proofing, Duct Bank Design
- Streetlight System Mapping and Upgrades
- ADSS Fiber in the Power Space
- EV Charging Station Design, Make Ready, and Installation
- Grid Modernization: Communication System Planning/ Specification and Design, Copper to Radio or Fiber Communication Conversions, Siting/Planning of Smart Device Deployment, DER Impact Studies
- Distribution Sectionalization, Recloser Modernization
- Joint Use Attachments (Make Ready)

TRANSMISSION LINE DESIGN
- Green Field, Reconductors, and Rebuilds
- OPGW Installation Projects
- Lightning Performance Projects
- Grounding Studies
- Soil Boring & Geotechnical Report
- Foundation Design: Drilled Piers, Steel Caissons, Direct Embed, Pile, and Cap
- Foundation Rehab Design
- Structure Design Details and Loading Trees
- Prepare Structure BOM for Bid
- Prepare Bill of Materials
- Attend Field Walkdowns
- Plan & Profile
- Stringing Charts
- Staking Details

PERMIT DRAWINGS
- Planning Commission
- Land Development
- Construction Permits
- Highway, Railroad, and Waterway Crossing Drawings
- Public ROW Occupation
- Traffic Control

SUBSTATION DESIGN
- Physical Electrical Design: Clearances, Equipment Location, Bus Selection, Grounding System
- Civil/Structural Design: Site Plans, Grading, Storm Water, Oil Containment, Bus Supports, Foundations, Steel Fabrication Drawings
- Electrical Package: One- and Three-line, AC and DC Schematics, Relay Elementaries and Settings, Panel Front Views, Current and Potential Drawings, Wiring, and External Connection Drawings

SYSTEM PROTECTION DESIGN
- Relay Settings
- System Studies
- Device Coordination

POST DESIGN & CONSTRUCTION SUPPORT SERVICES
- Assist in Construction Bid Technical Review
- Structure Staking
- Engineering Support During Construction and Commissioning
- Recording "As-Built" Information During Construction
- Preparing "As-Built" Drawings for Record
- Scheduling
- Estimating
- Quality Assurance/ Quality Control
- Progress and Cost Reporting

EMERGENCY RESPONSE SERVICES
- Storm Damage Patroller/ Screener/Assessor
- Post Restoration Review

Locations

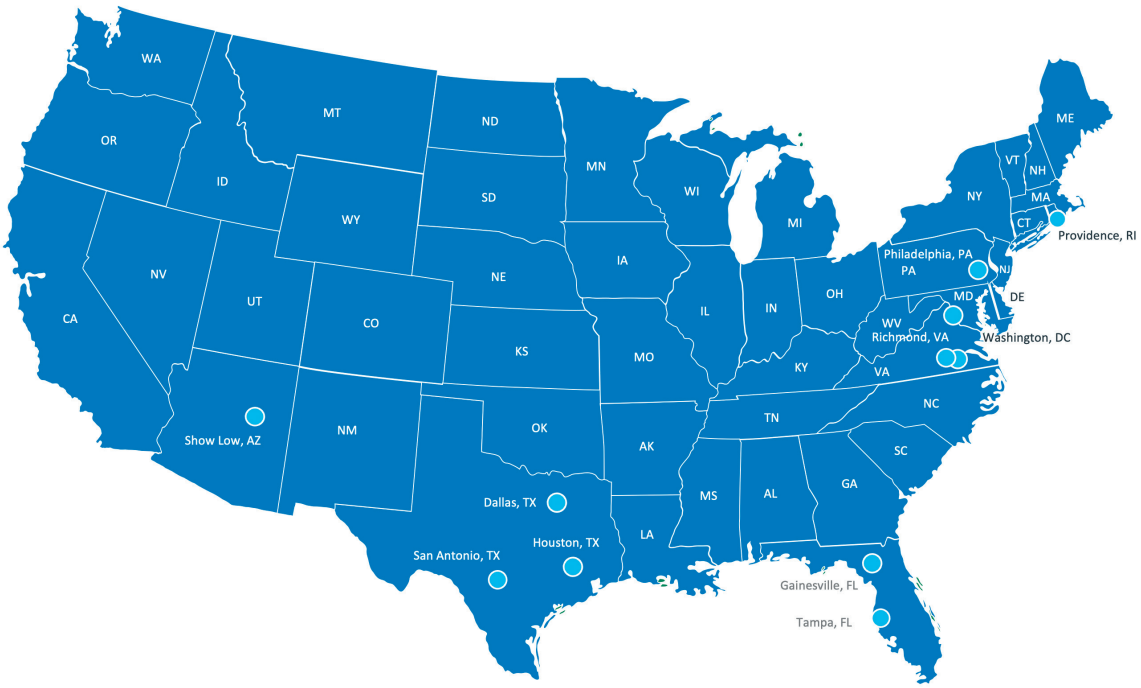
Arizona
2761 E. Cooley Street
Show Low, AZ 85901

Florida (Gainesville Area)
25430 NW 8th Lane
Newberry, FL 32669

Florida
9325 Bay Plaza Boulevard
Unit 209
Tampa, FL 33619

Pennsylvania (Philadelphia Area)
3 Valley Square, Suite 200
512 Township Line Road
Blue Bell, PA 19422

Rhode Island (Providence Area)
1395 Atwood Avenue
Suite 115
Johnston, RI 02919



Texas (Houston Area)
8030 Leesa Lane
Pasadena, TX 77507

Texas (Dallas Area)
515 Huffines Boulevard
Lewisville, TX 75056

Texas (San Antonio Area)
17300 Bell North Drive
Schertz, TX 78154

Virginia (Washington, DC Area)
8534 Y Terminal Road
Lorton, VA 22079

Virginia
3249 Coastal Boulevard
Richmond, VA 23224

Virginia
5373 Glen Alden Drive
Richmond, VA 23231

8/21

To learn more about our service offerings and HMITS' commitment to safety, quality, and performance, please contact us or visit our website.

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Contact us at 484-344-2161

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