

Commercial | Industrial | Utility



**30** ★  
YRS  
SERVICE

# ENGINEERING SERVICES

POWER SYSTEMS STUDIES & DESIGNS  
POWER QUALITY STUDIES & MITIGATION SOLUTIONS  
ELECTRICAL CONTROLS & AUTOMATION  
EMERGENCY POWER DESIGNS & SOLUTIONS  
PROTECTIVE RELAY DESIGNS  
ELECTRICAL POWER DESIGNS  
ELECTRICAL TRAINING  
EQUIPMENT SIZING, SPECIFYING & BOM CREATION

At Your Service!

[ENGINEERING@TDSSOLUTIONS.COM](mailto:ENGINEERING@TDSSOLUTIONS.COM)

[WWW.TDSSOLUTIONS.COM](http://WWW.TDSSOLUTIONS.COM)



Our expert team offers a full range of engineering services, including consulting and design, to ensure the safe, sustainable use of electric power. We partner with you to take engineering recommendations through to full implementation, including commissioning and testing.

## Services Include:

### Power Systems Studies & Designs

- Arc Flash Studies
- Coordination Studies & Mitigation
- Short Circuit Studies
- Load Flow Studies
- Equipment Evaluation / Sizing Studies

### Additional Engineering Studies

- Harmonics Studies & Mitigation Solutions
- Power Factor Analysis & Correction Designs
- Transient Motor Starting Analysis & Designs
- Grounding Studies & Designs
- Power Quality Analysis & Studies

### Electrical Controls & Automation

- Electrical Controls Designs
- PLC Control Designs & Code Creation (ABB, Siemens, GE, etc.)
- P&ID Interpretation
- PID Tuning and Analysis
- HMI & Operator Interface Designs
- Data Acquisition & SCADA Designs & Solutions
- Networking Architecture Designs

### Emergency & Standby Power Designs

- Backup Generator Sizing and Selection
- UPS System Integration
- ATS Designs and Selection

### Protective Relays

- Relay Protection Schemes & Designs
- Modern Relay Retrofits & Upgrades
- Coordination & Settings
- Commissioning & Reporting

### Electrical Power Designs

- MV/LV Commercial or Industrial Power System Designs
- Power Distribution Schematics & Equipment Selections
- Load Calculation and Analysis
- PE Stamped Designs

### Training

- Arc Flash Training
- General Safety Training
- Electrical Codes & Standards Training

### Instrumentation & Electrical

- Instrument Specifications (pressure, flow, temperature, level, etc.)
- Control Loop Designs
- Analog and Digital Signal Wiring
- Transmitter Scaling & Signal Conversions
- Power and Control Panel Designs (PLC, MCC, VFD, etc.)
- I/O List Creation & Mapping
- FAT/SAT Support and Commissioning Assistance

### Equipment Sizing, Specifications & BOMs

- Detailed Equipment Sizing Specifications & Bills of Material Creation
- Equipment: Transformers, Breakers, Fuses, Cables, VFDs, Motors

### Facility Code Compliance

- NEC Compliance
- NFPA 70E Compliance
- SKM Power Tools Expertise

## Professional Engineers on Staff

Our Professional Engineers (PE) are licensed in 40+ states and ready to support your project requirements.

## About Sentinel-TDS

A TechPro Power Group company, Sentinel-TDS, based in Dallas/Ft. Worth, TX, has been delivering industry-leading service solutions for over 30 years that empower its customers to safely start up and optimize the performance of their facilities' electrical and controls systems. Sentinel-TDS provides electrical, instrumentation and control testing and start-up and commissioning services to the power, oil & gas, process industries and other industrial end markets.



Need Engineering Services? We are Ready to Help!



ENGINEERING@TDSSOLUTIONS.COM

### SENTINEL-TDS

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