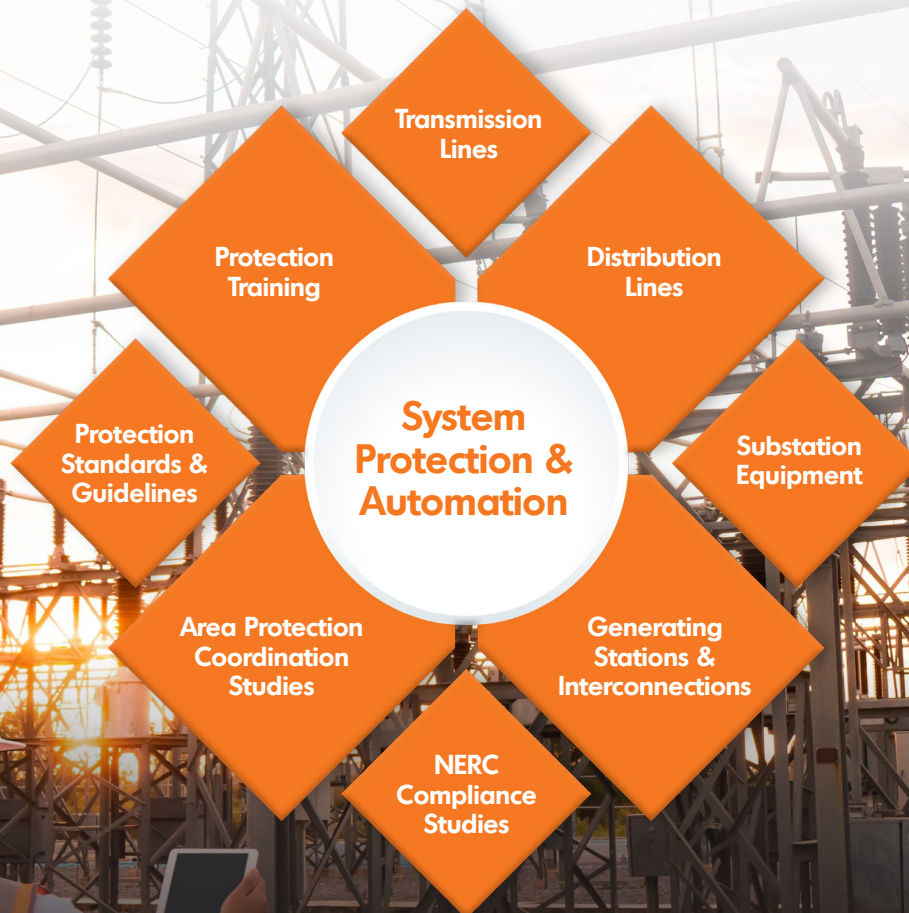




SYSTEM PROTECTION & AUTOMATION

At RMS Energy, we have the expertise to provide technical solutions for Transmission, Distribution and Generator System Protection. Our approach is based on a proven balancing philosophy of a reliable system with maximum selectivity, speed, simplicity, and fiduciary. Our engineers participate in various professional communities like IEEE (PES and PES-PSRC) and CIGRE.



⚡ RELAY SETTINGS BASIS, CALCULATIONS AND COORDINATION ⚡

⚡ REGULATORY COMPLIANCE STUDIES ⚡ PROTECTION PHILOSOPHY AND GUIDELINES ⚡

⚡ PROTECTION OF LINES, BUSES, TRANSFORMERS, BREAKERS, GENERATORS, ETC ⚡ FORENSIC EVENT ANALYSIS ⚡

OUR SERVICES

TAILORED SOLUTIONS FOR A RELIABLE PROTECTION AND SMARTER SYSTEM

System Protection Challenges

⚡ AGING INFRASTRUCTURE & LEGACY EQUIPMENT CHALLENGES

- Relay Upgrades needed to replace electromechanical or early digital relays with poor functionality and flexibility.
- Interoperability issues among manufacturers can cause configuration mismatches or communication failures.
- Regulatory Compliance requirements may not be met with legacy systems.

⚡ GRID RELIABILITY

- Lack of proper Relay Coordination Within and Among Different Entities
- Insufficient understanding of existing system conditions, resulting in improper selection of protection schemes
- Insufficient monitoring capabilities to record System Events for Forensic Analysis

⚡ CHALLENGES

- Regulatory Environment – NERC PRC standards in constant evolution.
- Evolving workforce dynamics requiring updated and ongoing training programs
- Changes in the Grid's Generation Composition - Integration of IBR's and BESS into Existing Grid

⚡ TECHNOLOGY EVOLUTION

- Traditional Wired vs IEC 61850 vs Hybrid Design
- Phasor Based vs Time Domain Relaying
- Reliance on outdated protection analysis tools limits innovation and hinders the adoption of advanced, adaptive protection technologies.

RMS Energy Offerings

⚡ SYSTEM PROTECTION STUDIES

- Use of advanced tools including ASPEN Oneliner, CAPE, ETAP, SKM and Easy Power
- Wide Area Coordination Studies
- Regulatory Compliance Studies (NERC PRC-019, PRC-024, PRC-025, PRC-026, and PRC-027)
- Forensic Event Analysis
- Comprehensive, clear, and actionable reports with detailed analysis and recommendations

⚡ OPTIMIZED PROTECTION STANDARDS & SCHEMES

- We customize protection standards and guides to conform to unique needs, regulatory requirements, industry standards and available technologies
- Implementation of a wide range of protection schemes and technologies, spanning basic configurations to highly complex applications.
- Project specific analysis for a reliable system with maximum selectivity, speed, and simplicity

⚡ RELAY CALCULATIONS & SETTINGS

- Detailed basis documentation and calculations of relay settings
- Highly competent in Schweitzer, Siemens, GE, Beckwith, Basler, etc. relays and their proprietary tools.
- Advanced internal tools for meticulous optimization to meet specific objectives of each protection system

⚡ TRAINING SERVICES

- Basics/Introduction of System Protection (symmetrical components, zones of protection, etc.)
- Intermediate level courses such as Equipment Protection (Lines, buses, breakers, transformers, etc.)
- Advanced level courses (Pilot Protection, LCD, Out-Of-Step, etc.)

WHY CHOOSE RMS ENERGY?



EXPERTISE



CUSTOMER FOCUS



INNOVATION



SAFETY



Connect with us to learn more about how we can support your power system needs and help you achieve your energy goals.



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