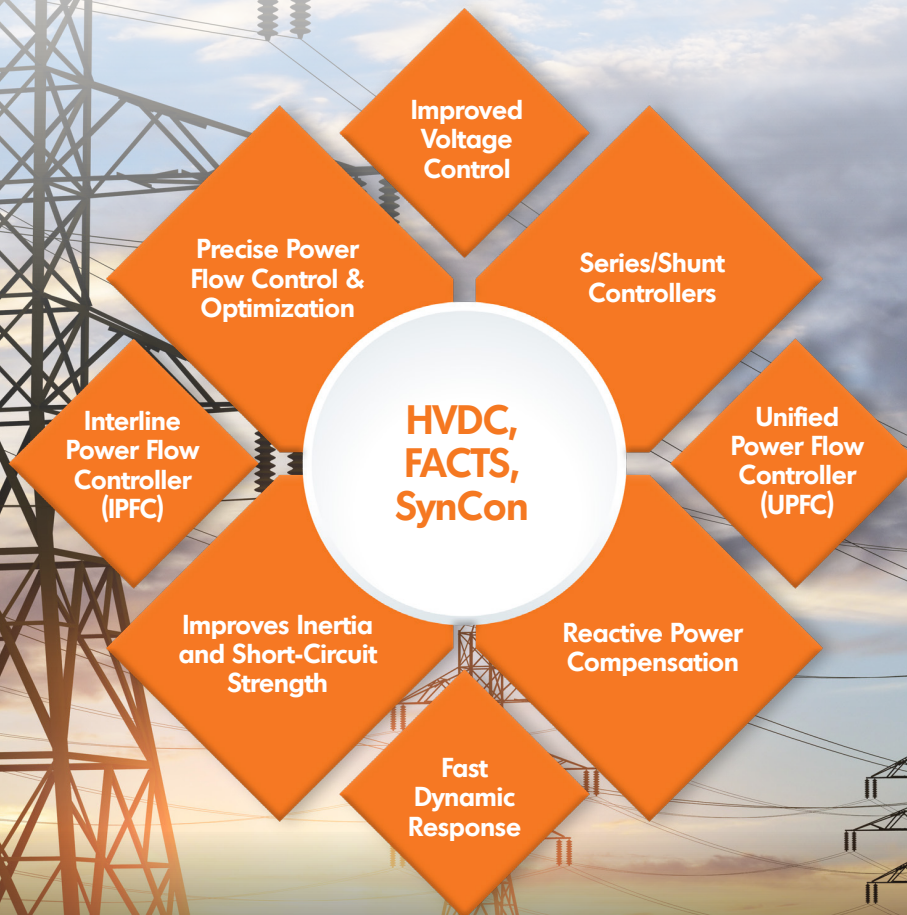


HVDC, FACTS & SYNCON LIFECYCLE SOLUTIONS

At RMS Energy, we have a team of domain experts who specialize in the application of advanced grid technologies including FACTS, Synchronous Condensers, and HVDC systems. Our team of specialists provides reliable guidance in selecting the most suitable and cost-effective solutions tailored to each project's technical and economic requirements.



⚡ TECHNICAL AND ECONOMICAL COMPARISONS ⚡

⚡ ENABLES HIGHER PENETRATION OF INVERTER-BASED RESOURCES ⚡ MODULAR AND SCALABLE DESIGN ⚡

⚡ VALIDATE HVDC/FACTS CONTROLLER TUNING ⚡ INCREASED CONTROLLABILITY AND TRANSMISSION CAPACITY ⚡

OUR SERVICES

TAILORED SOLUTIONS EMPOWERING GRID STABILITY THROUGH ADVANCED TECHNOLOGIES

Power System Challenges

⚡ TRADITIONAL AC TRANSMISSION CHALLENGES

- Congestion/Underutilization from lack of control over power flows
- Long distance lines consume reactive power contributing to voltage drops and instability
- Large losses over long distance lines
- Reduced transfer capacity due to power oscillations between regions
- Fault propagation with interconnected grids.

⚡ SYSTEM INERTIA & SHORT-CIRCUIT STRENGTH CHALLENGES

- Low inertia leads to faster and deeper frequency deviations posing under-frequency load shedding or blackout risks
- Increased risk of cascading failures
- Low short-circuit strength makes systems susceptible to voltage dips, oscillations, or instability during faults or switching
- Limits capacity for renewable resources

⚡ IMPLEMENTATION CHALLENGES

- Lengthy permitting and regulatory delays
- High capital costs and long lead times
- Specialized design and engineering requirements
- Space and siting constraints
- Operations and maintenance readiness

RMS Energy Offerings

⚡ SYSTEM DESIGN

- Power flow, dynamic, and short circuit studies to determine optimal location and specifications
- STATCOM-based dynamic reactive power support
- Custom control logic and protection schemes
- Model and mitigate harmonic injection
- Understand inertia levels of the system to determine if devices like synchronous condensers are required.

⚡ INTERCONNECTION SUPPORT

- Proficient domain knowledge and operational experience
- Supporting projects to deliver offshore wind to onshore grids via HVDC interconnection projects
- Providing expert guidance on interconnection processes in various ISO/RTOs.

⚡ OWNER'S ENGINEER

- Expert guidance on:
 - Suitable FACTS technology selection
 - Most economical solutions
 - Studying and modeling HVDC projects
 - Selection of requisite technology for HVDC projects

WHY CHOOSE RMS ENERGY?



EXPERTISE



CUSTOMER FOCUS



INNOVATION



RELIABILITY



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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