

Transmission Planning & System Studies Services

K&A's Power Systems engineers provide comprehensive modeling and analysis across generation, transmission, and distribution systems using industry-leading simulation tools. From power flow and stability studies to complex EMT and production simulations, our expertise helps power developers make informed decisions and reduce interconnection risks.

Analysis Tools

Positive Sequence – Power Flow & Dynamics

- PSS/E
- GE-PSLF
- DigSilent
- PowerWorld

Transients

- EMTP/ATP
- PSCAD

Production Cost Modeling

- PROMOD
- GE-MAPS
- Plexos
- Gridview

Short-Circuit

- ASPEN
- EasyPower
- ETAP
- SKM
- CAPE

Planning and Analysis:

Transmission System Conceptual Design & Upgrades

- FERC Order 1000 & 715 solutions
- Transmission upgrade studies and cost estimates
- Cost allocation and cost-benefit analysis
- Non-wire solution evaluations

EMT Analysis

Advanced transient simulations

Interconnection

End-to-end study support

IEEE 1547

Grid compliance expertise

Transmission System Studies:

- Steady-State Studies:
 - Thermal
 - Voltage
- Breaker Duties - Short-Circuit Current screening
- Generation Deliverability
- Available Transfer Capability
- Power System Stability
- Control system Design
- Control upgrades and settings
- Voltage Stability
- Volt/VAr Coordination
- Transformer and Cable Energization
- Capacitor Switching
- Harmonic Analysis

Protection Studies & Relay Settings

- Workflow ensures a systematic Protection coordination studies
- Relay setting development
- RTDS relay testing and validation
- Protection system performance analysis

Generator Interconnection Studies (Conventional & Inverter-Based)

- Transmission & distribution impact studies
- Thermal, voltage, short-circuit, harmonic, and stability analyses
- IEEE 1547 compliance assessments
- Network upgrade and cost evaluations
- Control system design and settings recommendations

