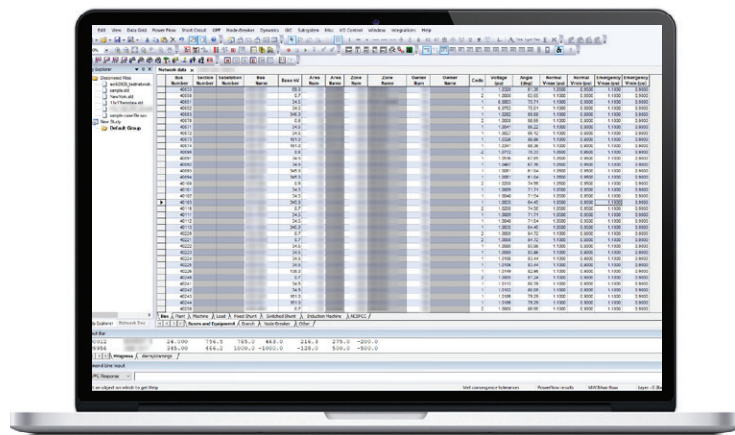


TRANSMISSION SYSTEM ANALYSIS AND PLANNING

OUR SOLUTIONS

EN Consulting offers a suite of comprehensive transmission system analysis and planning services that analyze, identify, explain, and solve complex technical issues for transmission owners. Our team of industry experts has decades of former utility transmission network modeling and analysis experience, including NERC reliability standards and audit support. Our expansive team covers a range of services, from system-wide grid assessments to interconnection study support.

We also assist our clients in navigating complex RTO policies affecting grid planning. Whether it is traditional steady-state analysis for competitive project development or investigating grid stability

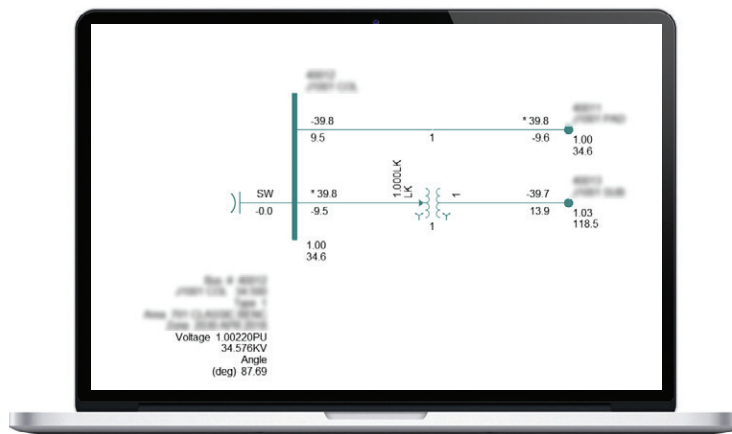


under an array of system conditions, the EN Consulting team has the expertise to perform robust and comprehensive system analysis on any portion of a transmission grid.

TRANSMISSION ANALYSIS

Our range of capabilities includes:

- Steady-state power flow, stability, and short circuit model development and analysis using GE PSLF, Siemens PTI PSS®E, PowerGEM TARA, EMTP / PSCAD™, Aspen, etc.
- Interconnection analysis including system impact studies, point of injection screening, facilities studies, and capacity deliverability for:
 - » Large generators and merchant transmission (HVAC and HVDC)
 - » Renewables including solar (PV), wind turbines, etc.
 - » Energy storage and hybrid systems for capacity and ancillary services (frequency, voltage support, etc.)
- NERC Reliability Standard analysis support for all technical standards in all RRO regions, including WECC, MRO, Texas RE, SERC, RF, and NPCC
- CIP-014 analysis to determine facilities subject to specific physical security requirements
- Advanced reliability analyses covering a wide range of potential system conditions including retirements, high load growth, carbon reduction plans, renewables futures/portfolios, offshore wind, voltage and angular stability, frequency regulation, GMD, cost allocation analysis methodologies, etc.
- Transmission alternative solution analysis (i.e., upgrades or reinforcements) including budgetary cost estimates, non-transmission/wires alternatives analysis (NTA/NWA), storage solutions, dynamic reactive resources optimization studies, etc.
- Operational analysis including contingent outage/stranded load analysis (n-1 or n-1-1) as well as event/disturbance root cause analyses



TRANSMISSION PLANNING

Our capabilities in transmission planning include:

- Regional reliability analysis and planning support for every major RTO/ISO, including PJM, MISO, SPP, ISO-NE, NYISO, CAISO, and ERCOT
- System-wide or local area transmission assessments consistent with NERC TPL-001 or other regional/local planning criteria
- 5/10 year capital plans or corrective action plans to evaluate plan alternatives and reinforcement project ranking to establish final capital forecast and schedule
- Conceptual transmission project development services from feasibility and screening studies to cost estimating, scheduling, and owners engineering support
- Order 1000 competitive transmission solicitation analysis, project development, and formal bid application support
- ISO/Stakeholder committee advisement, analysis, and support