



# ULTEIG TRANSMISSION PLANNING STUDIES:

## WE LOOK AHEAD TO KEEP OUR CLIENTS AHEAD.

In the rapidly evolving energy market, our clients rely on Ulteig's expertise to help them make informed decisions and weigh the many alternatives available.

Ulteig's depth of expertise and knowledge of the regulatory environment makes us well positioned to conduct a wide range of studies in transmission planning, transient studies, generation interconnection and NERC compliance, from coast-to-coast. Our team of highly-qualified studies engineers provide insightful analysis to help guide you in your decision-making, advising you of potential pitfalls and future project considerations. We manage all aspects of these studies in-house, which results in efficient stakeholder collaboration and gives you direct and reliable access to our team.

Efficient collaboration is not limited to Ulteig's studies team. Ulteig can be your one-stop-shop, combining substation facilities evaluation with planning studies and GIS visual mapping to deliver efficiencies from conceptualization to project start and beyond. For example, studies engineers collaborate with Ulteig's GIS team to provide a map of generation applications/retirements and type, or uncommon load growth/decline and type, with the final deliverable showing trending issues for transmission upgrades. This data helps our clients prioritize projects during the vetting process for the annual transmission plan and provides insight for streamlined management of interconnect developers.

# BETTER PLANNING. BETTER OUTCOMES.

## TRANSMISSION PLANNING

- Transient and dynamic stability studies
- Power flow and contingency analysis
- Remedial action schemes
- Insulation coordination studies
- Fault current studies
- System operating limits studies
- Cascading failure analysis
- Critical clearing time verification studies
- Transmission line path studies
- Mitigation solutions for multiple voltage and thermal violations
- Verification studies with multiple vendor softwares (TARA, PSLF, PSSE)
- Complete network dynamic stability studies for new/retired generation and critical clearing times
- Other region-specific evaluations upon request

## TRANSIENT STUDIES

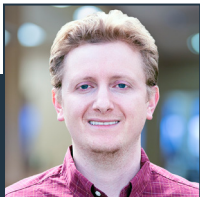
- Transient recovery voltage (TRV) studies
- Fuse/breaker coordination studies
- Switching studies
- Harmonic studies
- Capacitor bank switching studies
- Subsynchronous resonance

## GENERATION INTERCONNECTION

- Solar/wind dynamic and static model development
- Updated cluster study approach for injection studies following the implementation of FERC 2023
- First Contingency Incremental Transfer Capability (FCITC)
- Battery Energy Storage System (BESS) or Standalone Storage (SAS) charging analysis
- Ride-through studies (IEEE 1547)
- Small generator interconnection studies
- Utility-scale solar/wind project interconnection support
- Reactive power compensation sizing studies
- Network upgrade cost allocation studies
- Injection studies to find optimal location
- Deliverability analysis and prospecting studies
- Study replication and refresh studies for SSP, MISO, PJM, ERCOT and WECC
- Multi-state injection analysis for prospecting points of interconnection

## NERC COMPLIANCE

- |                   |             |
|-------------------|-------------|
| • FAC-008-3       | • PRC-019-2 |
| • MOD-025-2       | • PRC-023-4 |
| • MOD-026-1       | • PRC-024-2 |
| • MOD-027-1       | • PRC-025-2 |
| • PRC-001-1.1(ii) | • PRC-026-1 |
| • PRC-004-5       | • PRC-027-1 |
| • PRC-005-6       | • TPL-001-4 |
| • MOD-032-1       | • TPL-007-1 |



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## ABOUT ULTEIG

Ulteig delivers comprehensive design engineering, environmental planning and solutions, program management and technical and field services that strengthen infrastructure vital to everyday life. Ulteig connects people and resources to develop compelling, integrated solutions across multiple Lifeline Sectors®, including power, renewables, transportation and water. Ulteig's footprint spans the country and leverages its expertise with a wide range of public and private clients. [Learn more at ulteig.com](https://www.ulteig.com)



We listen. We solve.™