



Power System Studies Practice Overview



TRC has performed more than 500 transmission and distribution planning studies across the United States to analyze the system interconnection impact of wind, solar, storage, combined-cycle gas, biomass fueled, and hydro-electric generators.

With an experienced professional staff, TRC provides knowledgeable, in-depth analyses of complex issues related to the electric delivery system and the technical requirements of distribution providers, transmission owners, independent system operators and regional reliability councils. We use state-of-the-art software and modeling techniques to address steady state as well as transient and dynamic system simulations.

We have experience working with, and within, many operating areas throughout the country, helping us to be able to quickly modify processes and procedures to meet each individual client's objectives. Our work includes rigorous assessment designed to ensure that new generation added to a region's transmission and distribution systems will not have an adverse impact on system reliability and operating characteristics. Our studies determine the transmission upgrades needed (and the cost estimates) to meet established reliability criteria. In many cases, TRC has conducted alternative assessments to determine the most feasible interconnection that maintained system reliability within acceptable criteria.

Our services include:

- Transmission and Distribution System Expansion Studies
- System Impact Studies
- Power Flow, Short Circuit and Stability Studies
- Switching Studies
- Transmission and Distribution Planning Studies
- Feasibility Studies
- Reliability and Operational Studies
- Distributed Generation Studies
- Hosting Capacity Analysis
- Arc Flash Studies
- Protective Relay Coordination Studies
- Generator Interconnection Application Support
- NERC TPL and MOD Compliance Studies
- ISO and RTO System Addition Compliance Studies
- Generation and Emergency Generation Analysis
- Volt/VAR Analysis
- Capacitor Bank Switching and Application Studies
- Short-Circuit Fault Analysis
- Motor Start Analysis
- Loss Analysis
- Reactive Compensation Analysis
- Cable and Conductor Sizing
- Voltage Drop Studies
- Regional Power Flow and Dynamic Base Case Development in both PSLF and PSSE
- Stead-State, Dynamic and Short-Circuit Studies for Generation Additions
- Techno-Economic Analysis

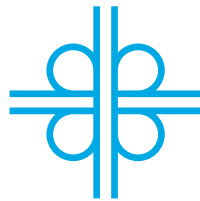
About TRC

Groundbreaker. Game changer. Innovator. TRC is a global firm providing environmentally focused and digitally powered solutions that address local needs. For more than 50 years, we have set the bar for clients who require consulting, construction, engineering and management services, combining science with the latest technology to devise solutions that stand the test of time.

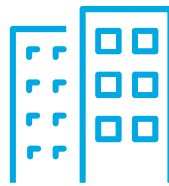
TRC's nearly 6,000 professionals serve a broad range of public and private clients, guiding complex projects from conception to completion to help solve the toughest challenges. We break through barriers for our clients and help them follow through for sustainable results.



Power & Utilities



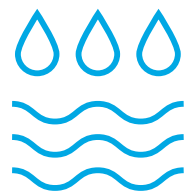
Transportation



Real Estate



Government



Water



Environment & Sustainability



Digital Solutions