



## TRANSMISSION PLANNING & POWER SYSTEMS STUDIES

PGE is a distinguished provider of Transmission Planning and Power Systems Studies services. PGE has extensive utilitygrade and high-voltage grid experience with planning, operating and maintaining bulk power systems. We offer a variety of transmission planning and system studies services to assist utilities in compliance with applicable NERC, Regional Reliability Organization (RRO), industry and client standards. Our engineers have extensive experience in generation interconnect processes.

### SERVICE OFFERINGS

#### GENERATION INTERCONNECT EVALUATION

- Feasibility Studies
- Renewable Generation Integration
- System Impact Studies

#### TECHNOLOGY EVALUATION & SYSTEM ANALYSIS

- PSS®/E
- PSS®/E MUST
- PSS®/SINCAL
- Power World
- CAPE
- TARA
- PSCAD
- PSLF

#### SHORT & LONG TERM POWER SYSTEM STUDIES

- Contingency Analysis
- Economic Analysis
- P-V Analysis
- Short Circuit Analysis
- Maintenance Outage Evaluations
- Thermal/Voltage Analysis
- Transient Stability Analysis
- Reactive Capability Analysis
- Total Transfer Capability (TTC) Analysis
- Transmission Service Request
- Electromagnetic Transient (EMT)
- Evaluation of Inverter-Based Generation

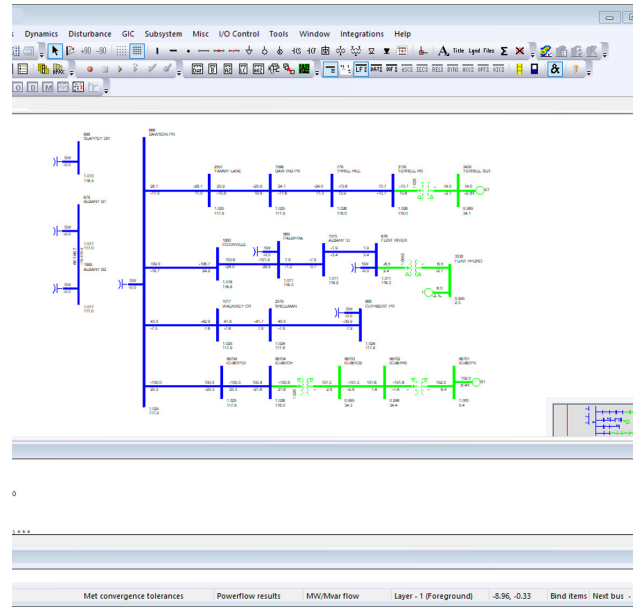


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## Generation Interconnection Florida, Alabama, Georgia, Mississippi & Tennessee

Perform System Impact and Feasibility Studies including steady state analysis, both thermal and voltage, transient stability and short circuit, and reactive capability analysis to identify Adverse System Impacts on the transmission system as a result of an Interconnection Request from the prospective Independent Power Provider (IPP). Determine facility additions, modifications and upgrades needed to maintain a reliable interconnection. In addition to identifying Adverse System Impacts on the transmission system, monitoring Local Power Companies (LPCs), as well as neighboring transmission systems for impacts.



## NERC Compliance Florida, Indiana, Kentucky, Ohio & North Carolina

Performed the functions of the Third Party Verifier of the Transmission Owner ("TO") Risk Assessments as outlined under NERC CIP-014-1 Requirement R2 for six TOs across the Southeast. The project included a review of the Risk Assessment Methodology that was developed by each TO to identify and develop a list of Transmission Stations and Transmission Substations that if rendered inoperable or damaged could cause instability, uncontrolled separation, or cascading within an Interconnection. Verifications of each TO's transmission models, study results and final list of stations were also performed, and recommendations to the final list of identified Transmission Stations or Substations were given as necessary.

