



Sargent & Lundy

Analytical Services for Transmission System Operations

Sargent & Lundy offers in-depth analytical support capabilities for all phases of transmission system operation and planning. Our services include:

Economic Analysis

- Economic evaluations and sensitivity analyses to determine optimum transmission configurations and major component locations based on market forecasts
- Utilize PROMOD for economic dispatch and unit commitment based on power market forecasting

Interconnection Studies

We offer a full range of interconnection study services, including the following:

- Grid load flow/contingency analysis
- Reactive power compensation analysis in compliance with FERC Order 827
- Grid short-circuit analysis
- Grid stability analysis

Detailed Design Studies

These studies are performed in support of new facilities as a part of detailed design:

- Insulation coordination and transient analysis
- OSHA-related overvoltage analysis for live-line work
- Static wire grounding scheme design/safety grounding analysis
- Protection and coordination analysis
- Arc-flash analysis
- Transient recovery voltage

Root-Cause Analysis

We offer services to determine the root cause of failures, faults, or malfunctions of transmission systems, including aspects such as:

- Breaker failure analysis
- Ferroresonance
- Harmonics and power quality
- Subsynchronous resonance (SSR)
 - Induction generator effect
 - Torsional interaction
 - Subsynchronous control interaction involving wind turbines

AREAS OF EXPERTISE

Grid Load-Flow Studies
Grid Stability Studies
Grid Transient Modeling and Studies
Overvoltage Studies to Meet OSHA Requirements

Contact: Michael W. Roessler
Vice President
+1-312-269-2266
michael.w.roessler@sargentlundy.com

Sargent & Lundy is a full-service engineering and consulting firm dedicated exclusively to electric power and energy-intensive clients, with experienced engineers, designers, and support professionals working on power projects worldwide. Sargent & Lundy's history and extensive design experience in the power industry provide an invaluable perspective to support its clients in the assessment, development, financing, and implementation of power generation and transmission projects.

Over 125 years of powerful ideas

Sargent & Lundy

www.sargentlundy.com