

The future distribution systems will look different than those of the past. There will be many more distributed resources and both resources and loads will need to be managed in real-time by a coordinated controller. Our engineers are prepared to help utilities and developers figure out how to make this all work, and have performed hundreds of distribution system renewable resource interconnection impact studies, including equipment design upgrades. We are proficient with ASPEN, SKM, PSCAD, Synergi, EasyPower, PowerTools for Windows and CYME for completing these analyses. We understand the issues associated with unbalanced loads and are experienced at solving voltage profile, voltage flicker, effective grounding, anti-islanding, power factor, short circuit, reverse power flow and other interconnection challenges. In addition, we perform PSCAD analyses for risk of islanding (ROI), ground fault over voltage (GFOV), load rejection over voltage (LROV), under frequency load shedding (UFLS), and control interaction per IEEE 1547-2018. Our strengths are complemented by a strong system protection group.

## TYPICAL STUDIES PERFORMED:

- Feasibility Studies
- System Impact Studies
- Time Series and Transient Analyses
- Curtailment Analyses (8,760 Analyses)
- Load Addition Analyses
- Motor Start Analyses
- Reliability Analyses
- IEEE 1453 Flicker Analyses
- Protection and Coordination Studies
- Harmonic Analyses
- Reliability and Resiliency Analyses
- Dynamic Reactive Device Sizing & Settings (DVAR, STATCOM, etc.)



**EMPOWERING ENERGY SOLUTIONS**  
for the future...today

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