

RLC Engineering offers comprehensive support for engineers and designers in assessing photovoltaic (PV), wind turbine, and battery energy storage system (BESS) generation systems. Our expertise lies in modeling system parameters and equipment ratings using the latest modeling software like ASPEN, CYME, EasyPower, and more. We adhere to industry standards like IEC, IEEE, and NFPA while accommodating specific client needs such as utility and NERC standards. Our services cover all design power studies, including evaluating conductor sizes for ampacity and voltage drop, verifying real/reactive power losses, determining protective device sizes and settings, validating equipment ratings for short circuits, and conducting arc flash analyses for equipment safety labels.

With today's rising interest rates and congested connection queues, value engineering is crucial for cost efficiency and faster construction timelines. Our extensive experience in addressing real-world challenges across numerous projects, allows us to evaluate multiple options to support our clients.

## DESIGN SUPPORT SERVICES INCLUDE

- Arc Flash Hazard Analysis (AC and DC incident energy calculations)
- Cable Thermal Ampacity Calculations (underground and overhead AC & DC circuits)
- Relay Settings Files creation for common recloser relays like SEL-651, SEL-751, and others
- Effective Grounding Calculations and Support
- Ground Potential Rise (Step/Touch) Calculations
- Harmonic Studies and Data Evaluation
- Insulation Coordination
- Lightning Risk Assessments
- Power (Load) Flow Studies
- Protective Device Coordination
- PV Capacity Test Analysis per ASTM E2848, E2939 using Python pvcaptest package
- Short Circuit and Equipment Duty Studies



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

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