

# Power systems skills and expertise

We will perform power system studies for any facility  
regardless of equipment manufacturer

Eaton's Electrical Engineering Services & Systems (EESS) offers a comprehensive portfolio of services tailored for every stage of a power system's life cycle and boasts a complete portfolio of engineering, design, analysis and consulting services. We can assist at every stage of the power system—from substation and distribution system design to renewable energy and smart grid engineering; from safety and reliability-focused studies to power quality and grounding-related audits and analyses.

Our power system engineering and consulting services focus on understanding your requirements and setting strategies for your power system in order to satisfy your business needs.



*Powering Business Worldwide*

## Power system studies

Eaton has one of the largest and most experienced team of power system engineers in the industry, with industry-standard software and advanced modeling and analysis capabilities at their fingertips. Eaton's power system engineers bring extensive skills and expertise to power system analysis and design. Active participation in technical societies such as IEEE® and collaboration with a variety of utilities and industries ensures that our engineers are knowledgeable about today's cutting-edge engineering techniques.

### Power system studies

- Arc flash analysis
- Short-circuit analysis
- Protective device coordination
- Selective coordination analysis and engineering
- Advanced protective relaying
- Load flow analysis / power factor correction study
- Motor starting study
- Harmonic analysis study
- Power quality site surveys and disturbance monitoring
- Grounding surveys and analysis
- Field harmonic measurements
- Transient stability study
- Switching transient analysis
- Bus bracing analysis
- Distribution systems reliability analysis
- Dynamic simulation
- Insulation coordination
- NERC compliance
- Microgrid and DER feasibility
- Integration capacity analysis (DER impact)
- Volt-Var network optimization

## Design engineering

Eaton's Electrical Engineering Services & Systems' global team is one of the largest and most experienced teams of power system engineers in the industry, offering a wide range of design services from 480 V to 345 kV, including both new installations and upgrades to existing facilities.

### Design services

- Substation design
- Ground grid design
- Soil resistivity testing
- Fall of potential testing
- Control building design
- Lighting design
- Interconnection analysis
- Relay coordination/programming
- Substation equipment specifications
- Protective relay panel design
- Insulation coordination
- Lightning protection

## Total arc flash solutions from industry experts

Eaton's arc flash solutions go beyond a study report and stress prevention, protection and preparation. Our products, engineering experience and industry know-how create a total arc flash solution to meet your company's needs.

### We offer a complete arc flash hazard analysis focusing on:

- Training, labeling, analysis and products
- Solutions to meet or exceed the latest arc flash related standards, including NFPA 70E, CSA® Z462, and IEEE 1584
- Improving system design and safety practices
- Industry-leading arc flash safety training program

For more information, please visit  
**Eaton.com/PSE**

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