Substation Physical Electrical Engineer

Company

Substation Engineering Company (SECo) is a full-service engineering and design firm delivering high-quality solutions to electric utilities nationwide. Our expertise spans substation, switchyard, transmission, and distribution projects, supported by advanced laser scanning, 3D modeling, and digital engineering capabilities. We combine strong engineering fundamentals with efficient, forward-thinking processes to deliver safe, reliable, and constructible solutions for critical utility infrastructure.

At SECo, our culture revolves around collaboration, accountability, and continuous improvement, where individuals are empowered to take ownership and make an impact with our ever-evolving power utility clients.

Job Description

Main Duties

Mid to Senior-level electrical engineering position focusing on the performance of both routine and complex activities and tasks related to the design of high voltage substations (up to 765kv).

Typical duties include (but are not limited to):

- Provides estimating, engineering, and design analysis for new and retrofit switchyard and substation projects up to 765kV.
- Designs and modifies physical design, specifications and layouts of major equipment and structures required for high voltage switchyards and substations.
- Prepares drawings for Site Plans, Plan and Elevation Views, Grounding, Conduit, Lighting and control building arrangements and details, AC Station Service, DC Systems and Bills of Material.
- Performs calculations such as grounding design, voltage drop, circuit ampacities, lightning protection analysis, bus calculations, transformer and bus sizing calculations, and AC and DC auxiliary system sizing calculations.
- Monitors budget and schedule for assigned tasks.
- Works in a team environment, coordinating requirements with other engineering and design disciplines.
- Provides technical direction to subordinate team members.
- Holds responsibility for the quality assurance of the documents to the applicable company and client standards.

Desired Education, Experience and Training

- BSEE with 5+ years of relevant experience in substation engineering with strong knowledge of applicable theories, practices and accepted procedures.
- Professional Engineering License or ability to sit for the exam within 6 months preferred.
- Ability to quickly develop broader knowledge through performing structured functional assignments, such as collecting and analyzing data related to specific tasks.
- Computer proficiency required as well as strong analytical and problem-solving skills.
- Experience with AutoCAD and MicroStation preferred.
- Accuracy and attention to detail, as well as the ability to meet deadlines and complete assignments.
- Basic written and verbal communication skills in English.
- Commitment to customer service and ability to work in a team-oriented environment.

Compensation & Benefits

The anticipated base salary for this position is $110,000-150,000, depending on qualifications and relevant experience. Candidates with exceptional, directly relevant expertise may be considered outside the anticipated range, subject to the scope of the role, internal equity, and compensation approval.

We offer a comprehensive benefits package, including:

- Medical/Dental/Vision Insurance
- Flexible Spending Account (FSA)
- Paid Holidays
- Generous PTO (Paid Time Off)
- Group Life Insurance/LTD/AD&D
- Voluntary Benefit Plans
- Employee Assistance Program (EAP)
- 401(k) Match
- Paid Parental Bonding Leave
- Gym Membership Reimbursement
- FE/PE Support
- Collaborative, Fun and Flexible workplace

Position Classification

- Exempt