

Substation Electrician

Department: Metering

Reports To: Manager of Metering & Substations

FLSA Status: Non-Exempt

Employment Status: Full-Time

Position Summary

The Substation Electrician assists in the installation, maintenance, testing, and repair of electrical substation equipment used in the transmission and distribution of electric power. Under the direct supervision of senior substation personnel, the Substation Electrician will learn the skills, procedures, and safety practices necessary to support the reliable operation of the municipal electric utility's substations and electrical infrastructure.

Essential Duties and Responsibilities

- Assist in the inspection, maintenance, testing, and repair of substation equipment including transformers, circuit breakers, switches, batteries, relays, and associated control systems.
- Learn and apply safe work practices in accordance with OSHA regulations, utility policies, and industry standards.
- Assist with preventive and corrective maintenance activities on electrical equipment and facilities.
- Support installation and termination of power and control cables.
- Learn to read and interpret electrical schematics, wiring diagrams, blueprints, and technical manuals.
- Assist with testing and calibration of protective relays, meters, and control equipment.
- Participate in substation construction, upgrade, and commissioning projects.
- Maintain tools, equipment, vehicles, and work areas in a clean and safe condition.
- Complete required training and coursework within established timeframes.
- Maintain accurate records and documentation of work performed.
- Respond to emergency outages, storm restoration efforts, and after-hours call-outs as required.
- Perform other related duties as assigned.

Required Qualifications

- High school diploma or GED.
- Basic knowledge of electrical principles and safe work practices.
- Ability to perform physically demanding work in outdoor environments.
- Valid driver's license with a satisfactory driving record.

Preferred Qualifications

- Completion of vocational, technical, or community college coursework in electrical technology, industrial maintenance, or a related field.
- Prior experience in construction, electrical work, utility operations, or industrial maintenance.
- Familiarity with hand tools, power tools, and electrical testing equipment.

Knowledge, Skills, and Abilities

- Strong mechanical aptitude and willingness to learn.
- Ability to follow verbal and written instructions.
- Ability to work effectively as part of a team.

- Strong commitment to safety and public service.
- Ability to learn utility operations, electrical systems, and substation equipment.
- Effective communication and organizational skills.

Physical Requirements

The employee must regularly:

- Work outdoors in varying weather conditions.
- Climb ladders and structures and work at elevated heights.
- Lift, carry, push, and pull equipment and materials weighing up to 50 pounds.
- Stand, walk, bend, kneel, and perform manual labor for extended periods.
- Work near energized electrical equipment while following established safety procedures.

Work Environment

Work is performed primarily at electrical substations and utility facilities throughout the municipal electric system. Employees may be exposed to varying weather conditions, electrical hazards, noise, and physical demands associated with utility operations. Participation in emergency response and system restoration activities is an essential component of the position.

Career Development

Successful completion of required training, demonstrated proficiency, and satisfactory performance may lead to advancement opportunities within the Department.

Safety

Employees are expected to perform all duties in accordance with applicable OSHA regulations, Virginia safety standards, and HEC policies. Proper use of personal protective equipment (PPE), adherence to lockout/tagout procedures, and compliance with all safety protocols are essential functions of this position. Employees must also comply with all applicable federal and company drug and alcohol testing requirements, including pre-employment, random, reasonable suspicion, post-accident, return-to-duty, and follow-up testing, as required by federal regulations and HEC policy.