

**CARTERET-CRAVEN ELECTRIC COOPERATIVE
POSITION DESCRIPTION**

POSITION:
Engineering Technician

REPORTS TO:
VP, Engineering and Operations

DEPARTMENT:
Engineering

DIRECTS:
None

EFFECTIVE: 04/2019

GRADE: 9

PURPOSE OF POSITION:

Provide engineering assistance for the construction and maintenance of Carteret-Craven EMC's electric distribution system in conformity with established engineering practices, RUS specifications and the National Electric Safety Code and in accordance with established policies, procedures and budgets. To assist in substation maintenance, including SCADA, substation relaying, and equipment repairs and upgrades as directed.

MINIMUM JOB SPECIFICATIONS:

All requirements are subject to possible modification to reasonably accommodate individuals with disabilities. Some requirements may exclude individuals who pose a direct threat or significant risk to the health and safety of themselves or other employees.

Education: Require Associate Degree in related field or equivalent. Prefer Bachelor's Degree in Engineering or Electrical Engineering Technology or a related discipline

Experience: Prefer demonstrated experience of electrical distribution and transmission systems, experience in various phases of operating an electrical distribution system; knowledge of all national and local electric codes and OSHA. Require ability to acquire proficiency in the RUS construction specifications and procedures. Demonstrate computer experience including spreadsheets. Prefer experience with SCADA, engineering software, Auto Cad and databases. Become knowledgeable of retail rate schedules and structures, and Carteret-Craven EMC's policies, procedures, and service rules and regulations.

Require excellent verbal and written communications skills; excellent interpersonal skills for effective interaction with personnel/public. Require ability to work irregular hours.

Driver's License and Employment: Require the ability to have and maintain a valid North Carolina driver's license and successfully pass Carteret-Craven Electric Cooperative's employment entrance examination and drug screen.

WORKING CONDITIONS:

Frequent field work; general office conditions and business-related travel with irregular hours deemed necessary by the position and emergency situations. Require the physical ability in

Engineering Technician

stooping, kneeling, crouching, reaching, standing, walking, fingering, grasping, talking, hearing, defined light work. Require visual acuity in machine operation (a) and (c). Exposure to outside environmental conditions on a regular basis.

WORKING RELATIONSHIPS:

Internal: Two-way communication with immediate supervisor to receive direction, instruction, approval; to provide work related information in a timely manner; with other Cooperative personnel to coordinate and provide support.

External: Works with members to provide advice and assistance; with other utilities and government agencies; demonstrates an awareness that the job exists to effectively serve each and every member, and at every opportunity to achieve increased member and public understanding for support of the Cooperative.

ESSENTIAL DUTIES:

Note: The following are the essential duties and performance standards of this position. The essential duties do not include marginal functions that are incidental to the performance of fundamental job duties. The scope and duties of a given position may change or be temporarily altered based on the business needs of Carteret-Craven Electric Cooperative. This document does not create an employment contract, implied or otherwise, other than an “at will” employment relationship.

1. Aids the Engineering Department on engineering/system projects and reports
 - A. Assists in ensuring the distribution system is designed, constructed and maintained in accordance with RUS and NESC specifications.
 - B. Provides technical and system assistance and advice, as requested and needed
 - C. Conducts system studies, as directed
 - D. Ensures current knowledge of system and engineering software packages
 - E. Provides quality checks and maintenance/trouble shooting of the SCADA and CVR systems.
 - F. Ensures economical considerations are based on sound engineering principles.
 - G. Ensures coordination with other utilities in accordance with established guidelines.
 - H. Assists with the proper design and staking of the distribution system.
 - I. Assists with directing contractors in large construction or conversion projects
 - J. Assists Engineers in analyzing data and makes recommendations, as needed
 - K. Performs field work for verification of accurate mapping and other drawings, as necessary

2. Assists in preparing and recommending the Engineering Department budget, short- and long-range plans, and the work plan to the VP Engineering and Operations.
 - A. Annually assists with the budget and work plan within allotted timeframe.
 - B. Assist with short- and long-range departmental planning.
 - C. Assists in preparation of Construction Work Plans.
 - D. Assists in performing various system studies, including coordination studies,

Engineering Technician

- ensuring coordination with relay and substation breaker settings for safe and reliable service.
 - E. Assist with studies and monitoring system voltage and current, performing load balancing studies as necessary, ensuring substation loads are equally balanced and proper voltage is maintained throughout the system.
4. Assists in operation and maintenance of the Cooperative's transmission and distribution systems.
- A. Assists with restoration of power during outages.
 - B. Assists or performs inspections, repairs, operations, maintenance of substation and downline equipment.
 - C. Operates and assists in maintaining the SCADA system, work order system, mapping (GIS) system, AMI system, CVR system and other engineering related systems essential to providing reliable service.
 - D. Assists in the testing, repair and calibration of all electronic substation equipment.
 - E. Assists in setting, testing, and calibration of AMI meters to ensure proper levels of operation.
 - F. Assists in performing power quality investigations using electronic monitoring equipment to identify and correct power quality issues as necessary.
 - G. Assists in the accurate installation of line voltage regulators, switched capacitors, reclosers and associated control wiring.
 - H. Assists as needed in annual substation maintenance activities.
5. Effectively addresses member complaints; investigates and recommends effective solutions to member complaints in a timely manner.
- A. Keeps supervisor informed of any unusual member complaints.
 - B. Ensures that all members' complaints from the field within his/her area of responsibility are immediately resolved.
 - C. Ensures that any complaints which cannot be resolved and are within his/her area of responsibility are routed to the proper person within one day of notification.
6. Maintains safety standards and awareness. Maintains cyber and physical security safety standards and awareness.
- A. Establishes and maintains acceptable safety standards.
 - B. Maintains current knowledge of Carteret-Craven EMC's safety regulations and evaluation of personal compliance.
 - C. Performs in accordance established safe environment.
 - D. Enforces safety standards, as necessary.
 - E. Assists in conducting safety meetings on engineering topics.
 - F. Communicates with the IT Department on issues affecting the transfer of data, system upgrades, and enhancements to ensure coordinated efforts between departments.
 - G. Ensures all IT-related security policies are strictly followed and plays an active role in maintaining system's security.
7. Performs substation inspections in accordance with designated procedures.
- a. Performs substation inspections on a monthly basis, scanning stations twice per

Engineering Technician

- year with infrared camera.
 - b. Report any deficiencies to supervisor in a timely manner.
 - c. Accurately records all data.
 - d. Assists with the maintenance of substation relaying by outside contractors as directed.
8. Provides substation maintenance as required.
- A. Inspects OCR and voltage regulators for proper operations, and diagnosis and repairs problems as directed.
 - B. Uses test equipment to test and calibrate RTU boards.
 - C. Checks CT meter installations and installs meter and relay wiring as needed and instructed.
 - D. Performs SCADA maintenance and installations as directed.
 - E. Performs maintenance on fences, control houses, and substation grounds, as directed.
 - F. Accurately tests and maintains substation batteries and battery chargers.
 - G. Ensures all substation relaying targets are cleared and recorded during monthly inspections.
 - H. Performs field inventories of company distribution facilities as needed.
 - I. Assists with mapping software updates as needed.