

Tri-County Electric Cooperative, Inc. Position Description

Job Title: System Engineer
Department: Engineering
Reports To: Engineering Manager
Effective Date: November 2022
Classification: Non-Exempt

JOB SUMMARY:

Responsible for assisting in planning, organizing, directing, and guiding the activities of the Engineering department.

EDUCATION, TRAINING AND EXPERIENCE:

Bachelor's Degree in Electrical Engineering is preferred along with three or more years' experience in the electric utility industry.

ESSENTIAL FUNCTIONS AND DUTIES:

1. Perform voltage drop, fault current, flicker, transformer loading, and sectionalizing studies and make recommendations pertaining to system enhancements or load limitations.
2. Develop and monitor annual work plan, work order and expenses, including capital needs for annual budget
3. Comply with the requirements of the internal compliance procedures for NERC.
4. Understanding of industry standards, including but not limited to National Electric Safety Code (NESC), National Electric Code (NEC), American National Standards Institute (ANSI) and Institute of Electrical and Electronics Engineers (IEEE.)
5. Recommend and advise the Engineering Manager of system enhancements needed in the work plan preparation.
6. Write switching orders and assist and oversee large or complicated switching orders in dispatching.
7. Oversee pole testing program.
8. Check pole attachments and provide info to billing.
9. Assist billing with CP metering rates.
10. Analyze power quality data along with line phasing and balancing
11. Update engineering model with new loads and sectionalizing changes and coordinate with others to update their models.
12. Provide demand, energy usage data, and substation seasonal peaks to energy and/or transmission supplier for load forecasting.
13. Monitor and operate the SCADA system during a load curtailment request and at other times as needed. Advise changes and corrections to the SCADA system.
14. Monitor system VARS and recommend energizing/de-energizing capacitor banks.
15. Assist crews and service technicians w/fault locations.
16. Check monthly power bill for anomalies.
17. Assist in the develop of department and individual goals and objectives. Provide

information and data for the monthly engineering board report.

18. Perform duties in accordance with all applicable policies, rules, regulations, and laws pertaining to TCEC.
19. Serve members by taking appropriate action on requests and questions promptly and ensure they are treated with courtesy at all times.
20. Maintain effective communications with other departments to assure coordinated efforts and understanding in carrying out objectives. Work to obtain mutual agreement on problems involving coordination.

KNOWLEDGE, SKILLS AND ABILITIES:

1. Knowledge of planning, organizing and coordinating a variety of activities.
2. Ability to prepare and present reports, work plans, budgets, estimates and performance records.
3. Ability to add, subtract, multiply and divide in all units of measure, using whole numbers, common fractions, and decimals. Ability to compute rate, ratio, and percent.
4. Knowledge of computer skills including application of spreadsheet, database structures, word processing and engineering software.
5. Strong interpersonal skills to establish and maintain effective working relationships with members, management staff and other associates.
6. Ability to communicate effectively in oral and written form.
7. Ability to read, write and be proficient in trigonometry.

OCCASIONAL RESPONSIBILITIES AND DUTIES:

1. Participate in technical, professional and community activities.
2. Travel by automobile or airplane for work, training or planning purposes.
3. Download engineering model from the map as requested and allocate load to the model accurately.

SUPERVISION RECEIVED AND EXERCISED:

Receives general guidance and direction from the Engineering Manager.
Supervises and directs none.

PHYSICAL, MENTAL AND VISUAL DEMANDS:

1. Majority of time requires sitting, bending at neck, waist, legs, and arms; twist body; and change positions at will. Frequent driving. Occasional standing, walking, stooping, bending, kneeling, reaching, and stooping.
2. Exertion of 10 pounds of force frequently, up to 20 pounds of force occasionally. While in the field lifting or moving objects 25 pounds or over occasionally.
3. Requires repetitive motions with hands and fingers such as keyboarding, use of telephones, cell phones, etc.
4. Requires close vision, distance vision, color vision, peripheral vision, depth perception and the ability to focus.

5. Must be able to see, hear and speak.
6. Noise level in work environment is moderate. Work requires close attention to detail and accuracy and is varied in nature with regular interruptions. Work is subject to irregular hours.

This position description is not intended to be all-inclusive; an employee will also perform other job responsibilities as assigned by the immediate supervisor or management.

Management reserves the right to change position descriptions, specifications or work schedules to accommodate individuals with disabilities or as the need arises.

This position description does not constitute a written or implied contract of employment.

Pursuant to the Oklahoma Medical Marijuana Patient Protection Act, TCEC employees whose position(s) involve tasks or duties which TCEC reasonably believes could affect the safety and health of the employee performing the task or others are still subject to discipline under TCEC's drug-testing policies for violations of said policies due to the usage and/or possession of marijuana.