

Rural Electric Convenience Cooperative, Auburn, Illinois  
Position Description

## **Engineering Technician**

### **I. OBJECTIVES, RESPONSIBILITIES, AND DUTIES**

The objective of the Engineering Technician position is to assist Operations in activities associated with electrical staking of overhead and underground lines, operating the Cooperative's SCADA, and Mapping systems. Other objectives include, AMI support, providing analytical support and analysis related to electric rates, cost of service studies and MISO Meter Reading true-ups.

The following responsibilities and duties detail the various tasks an Engineering Technician may be asked to assume or be proficient in:

- A. Assist in providing engineering services necessary to extend new electric services, upgrade existing electric services, stake primary line extensions and conversions, develop, obtain, and maintain necessary documents and collect data for determining future needs and requirements
- Maintain familiarity with cooperative construction practices and procedures.
  - Assist in posting line changes and additions to systems maps.
  - Maintain familiarity with National Electrical Safety Code specifications.
  - Engage in field activities to secure information needed to complete maps.
  - Enter information about lines and equipment on master set of system maps in an accurate, neat and readable form.
  - Prepare maps and information for use of consulting engineers.
  - Use the computerized drawing system to maintain all system key maps, detail maps and circuit diagrams, and maintain related files.
  - Assist with the gathering of information for safety inspections.
  - Attends and participates in Annual Meeting of members, as assigned.
  - Perform other duties as requested or assigned, including the replacement of other personnel in their positions for short periods of time, as required.
- B. The skills and knowledge to operate the Cooperative's SCADA, and Mapping Systems and to develop programs capable of meeting those needs.
- Inspect, install, remove, and repair electrical equipment (*Less than 750 volts*) in a safe, logical, and efficient manner complying with all electrical codes and safety regulations.

- Inspect, install, remove and program Cooperative substation SCADA equipment.
  - Assist in maintaining and programming Cooperative distribution electronic control devices (e.g., OCRs).
  - Operate computer equipment and software to perform SCADA, mapping and other miscellaneous functions.
  - Coordinate mapping activities with other departments, providing counsel and assistance, as needed.
  - Gather data for the preparation of the work plan and other reports as directed.
  - Assist in updating maps as new data is received relative to new construction, line improvements and other projects.
  - Maintain and update databases using GIS and other software.
  - Develop and maintain links between various databases.
  - Conduct mapping research, to resolve conflicting information and ensure the accuracy of the data.
  - Create maps using GIS and AutoCAD software.
  - Demonstrate continuous effort to improve operations, decrease turnaround times, streamline work processes, and work cooperatively and jointly to provide quality member service.
  - Work with digital and/or paper resources to layout and draft land base and utility facilities with NISC's GIS software.
  - Reviews all maps for compliance with appropriate connectivity model.
  - Reviews and corrects distribution system discrepancies after conversions from other GIS systems.
- C. The provision of specialized skills and knowledge to assist in the operation the Cooperative's AMI system, to assist in analyzing the Cooperative's data processing needs and to develop programs capable of meeting those needs.
- Operates data processing equipment to process assigned AMI, mapping and other miscellaneous functions.
  - Install, trouble shoot and repair in-house and substation equipment.
- D. Desired Job Experience:
- Working knowledge of a distribution electric system.
  - Understand the flow of information between Mapping, Milsoft and OMS.
  - Working knowledge of GIS software including: ArcMap, ArcInfo, ArcView, ArcGIS Server, ArcCatalog (AutoCAD a plus).

- Working knowledge of Geography.
- Working knowledge of GIS database design and manipulation.
- Working knowledge of GIS geometric networks.
- Working knowledge of spatial and attribute data manipulation for geographic information systems.
- Familiarity with industry specific (electric utility and telecommunication) terminology, symbology, system layout and construction units.
- Ability to use graphic instructions such as blueprints, staking sheets or other visual aids.
- Ability to operate GIS systems effectively.
- Ability to read and use quarter-section maps, plat maps, land base maps, single line maps, and aerial maps.
- Excellent PC skills, including Word, Excel and Access.
- Excellent problem solving skills with a strong attention to detail.
- Excellent communication skills (face-to-face, telephone and e-mail).
- Ability to organize and prioritize.
- Ability to interact in a positive manner with internal and external contacts.
- Ability to work independently, as well as in a team environment.
- Ability to travel occasionally to meet the goals and objectives of the department.
- Available to work overtime hours as needed.
- Ability to learn new technology at a timely pace.
- Must be able to take direction from management, adhere to required work schedules, and focus attention on details.
- Ability to analyze and interpret data and prepare reports and presentations from data obtained.

## **II. AUTHORITIES AND ACCOUNTABILITIES**

The Engineering Technician shall have full authority to carry out these responsibilities in conformity with established policies and procedures.

They are encouraged to use initiative and judgment in making decisions, remembering that the Cooperative's best interests can be affected by their actions. They should feel free to make suggestions for the improvement of operations and efficiency, remembering that the Cooperative's employees make up a single team and that each team member contributes toward making the Cooperative better. This position description is not intended to limit or restrict anyone; it provides a framework for defining the position and for providing direction and guidance for the employee in performing his/her duties.

The Engineering Technician shall secure approval of the Manager of Operations & Maintenance in making decisions when policies are not clear or adequate or require interpretation.

### III. POSITION SPECIFICATIONS

#### A. Fair Labor Standards Act Provisions

The position of Engineering is a non-exempt position under the provisions of the Fair Labor Standards Act and is subject to the Cooperative's policies and procedures pertaining to overtime hours and premium pay.

#### B. Personal Requirements of Position

##### 1. **EDUCATION**

At least two-year degree in engineering or computer disciplines is required. A Bachelor's Degree is preferred.

##### 2. **EXPERIENCE**

A minimum of 3-5 years previous experience in office work or work of a similar nature is required. Experience in meeting and dealing with people in a business setting is preferred.

##### 3. **KNOWLEDGE**

Electrical knowledge is preferred.

##### 4. **PERSONAL CHARACTERISTICS**

Must be able to perform the essential elements of the position of Engineering Technician competently, following a training period of not to exceed 6 months. Must possess personal characteristics which will make employee a productive work team member, including: high integrity, good personal habits, and regular work attendance. Should be friendly and able to meet people easily and adjust to different personalities. Should be able to gain and maintain respect of others, both inside and outside of the organization.

##### 5. **PHYSICAL CHARACTERISTICS**

Employee is often expected to complete tasks under strong time pressures with relatively short notice. Position requires limited physical effort with some lifting or small physical exertion. There are frequent opportunities to relax from any physical exertion or to change position in work activities.

##### 6. **WORKING CONDITIONS**

Work is generally performed in an office setting in a controlled environment. The noise level is low, and the work area is not crowded.