

**CLASS TITLE:** Electrical Engineer

**CLASS FUNCTION:** To assure that the electrical facilities of the cooperative are constructed, maintained and operated to accepted industry standards in accordance with sound engineering design. To assure that electric facilities meet applicable standards and safety and code requirements. To assure adequate planning, including long and short range plans, and programs for the orderly development of distribution and substation facilities. To provide expertise for day to day questions, concerns and issues.

**REPORTING RELATIONSHIPS:**

- Reports to: Manager – Operations & Engineering

**EXAMPLES OF DUTIES:** (illustrative, not inclusive)

- Develops long and short range work plans, including plans, specifications and costs for the construction of distribution and substation facilities, and cost/benefit analyses for various projects;
- Conduct engineering studies to evaluate and improve system coordination;
- Maintain and validates engineering analysis model (MilSoft, WindMil, Light Table and NISC Operations Analytics);
- Assist with annual budget preparation and justification;
- Correspond with connected and business partner utilities on operating and planning matters;
- Participate as a technical advisor as needed in the field and in developing and implementing a proactive program to address NEV issues and substation construction;
- Possess a working knowledge of load management (LM), automated meter infrastructure (AMI), distribution/substation automation (SCADA) systems and develop a familiarization of related technologies, installation and maintenance of the communication systems necessary to operate the SCADA/Load Management system;
- Reviews construction projects to assure compliance with the NESC and cooperative service requirements and standards;
- Assists with technical support and provides guidance to staking technicians in the design and layout of construction projects as needed – particularly with large power loads;

- Provides training and developmental opportunities for the staff of the engineering/operations department;
- Investigate, evaluate, specify and assist in selecting equipment to be used in providing service to the members;
- Other duties as assigned.

The above statements are intended to describe the general nature and level of work being performed by people assigned to this classification. They are not intended to be construed as an exhaustive list of all responsibilities of personnel so classified.

**KNOWLEDGE, SKILLS AND ABILITIES:**

- Shall have a thorough knowledge and be familiar with distribution system components and their functions;
- Shall possess the ability and knowledge to conduct coordination, voltage drop, motor starting and capacitor/regulator placement studies;
- Must have knowledge of computers and the ability to use computers. Ability to use engineering software, AMI system software; database system such as Access, spreadsheets such as Excel and word processing such as Word;
- Must have the ability to communicate technical information to those who have limited technical knowledge;
- Shall possess good teamwork skills;
- Shall possess the ability to attain identified goals in a self directed manner;
- Must have the ability to recognize and analyze problems and identify creative, cost effective solutions;
- Must have good communications abilities to assist members with concerns and to help them understand the basics of electricity and electrical system operation;

**EXTERNAL RELATIONSHIPS:**

- Members – Consumers
- Dealer and Vendors Representatives
- Consultants
- Government (Local, State and Federal)

**NECESSARY QUALIFICATIONS:**

Bachelor of Science degree in Electrical Engineering; Valid Driver's License. Professional engineer license or the ability to obtain the license.

**DESIREABLE QUALIFICATIONS:**

Three to five years of engineering experience with electric distribution systems, including experience in conducting protection coordination studies, two year work plans and ten year long range plans for a primarily rural electric cooperative; two years experience in on-farm NEV testing, and a familiarity with distribution line (overhead and underground) staking.

**PHYSICAL QUALIFICATIONS:**

Work in both a climate controlled office environment (80 – 90% of the time) and in an outdoor environment the balance of the time. The position will be required to work in an outdoor environment at all times of the year, occasionally including inclement weather. The position will be required to drive a cooperative vehicle (a pickup or similar sized vehicle) to any part of the Cooperative service territory to address member and employee needs.

12/2024