POSITION DESCRIPTION

Position: System Engineer

Status: Salaried with Overtime (non-exempt)

Department: Engineering Services

Reports to: Manager of Engineering Services

Supervisory Responsibilities: None

Job Summary:
This position is responsible for completing electrical analysis of the cooperative's distribution system, the implementation of the cooperative's control systems utilized at substations and transmission lines as well as associated communication, instrumentation, and power distribution systems. This position also supports performance of the cooperative's radios, metering, and load control equipment.

Essential Responsibilities:

- Complies with established CEC safety and operating rules, policies, procedures and guidelines. Be responsible for reporting any unsafe practices and/or hazards to a supervisor or manager. Be committed to and actively involved in CEC's safety programs, initiatives and performance.
- Develops and administers electrical system models utilized by the cooperative. Prepares electrical system studies, including voltage drop, fault current, and protective device coordination calculations. Assists in developing construction work plans by testing solutions on system models.
- Performs detailed data analysis to improve system performance, including outage analytics, performance trend reviews, and accuracy audits.
- Completes engineering economic evaluations to select the best alternative among compared project options.
- Administers, implements, and maintains CEC's SCADA control and communication systems, including head-end (master) equipment and software utilized with these systems. Maintains a working knowledge of these systems. Provides support for consultants working on systems.
- Supports schedule for and performs preventative maintenance on equipment, including breaker controls testing and voltage regulator settings.
- Performs installation and maintenance activities in both indoor and outdoor environments; approximately 10% of this position's duties are performed in the field.
- Designs, installs and maintains substation and field equipment, and effectively utilizes computers for installation, testing, and repair of the associated metering, communications, SCADA, and load management equipment.

- Reviews daily and monthly meter readings to ensure accuracy of reports. Assists monthly billing activities including posting of billing information and reviewing individual accounts upon request.
- Works with other employees to troubleshoot control and communication system problems and implement repairs. Updates technical and program documentation, including schematics, wiring diagrams, and functional descriptions.
- Performs administration and technical support for metering and load control systems.
- Recommends equipment purchases, as needed, for AMI, SCADA, radio and other system improvements.
- Reviews GIS data for accuracy of connectivity and protective devices as compared with the planning model, coordinating revisions with GIS Specialist.
- Researches, tests, and recommends technical improvements to utility operations. Works with employees and suppliers to explain the functioning of processes and procedures needed for the operation of new equipment.
- Responds to member inquiries regarding technical engineering information, including distributed generation interconnects and load control specifications.
- Performs fleet maintenance including but not limited to AVL equipment, standby generator, phone, fire detection, and security systems.
- Mentors engineering and operations staff regarding functionality of cooperative control and communication systems. Provides basic training of systems to cooperative staff as directed.

Required Skills/Abilities

- Ability to provide excellent customer service to members, vendors, and fellow employees is a key part of this position; integrity, pleasant disposition, and tact are essential.
- Ability to handle a multitude of projects simultaneously and maintain a high degree of accuracy in work performance and finished work quality.
- Ability to present information and be courteous to others while under stress.
- Ability to make decisions in the best interest of the cooperative regardless of the circumstances.
- Must be innovative in order to creatively develop new solutions to problems. Seeks, recommends, develops, supports and encourages new ideas.
- Demonstrates strong mathematical abilities and the ability to perform tasks effectively and timely.
- Must be able to read and write. Requires measuring, analyzing data and reports, conducting research and implementing recommendations. Skills in developing plans, procedures, and goals required.
- Communicates effectively in written and oral form and completing work reports and related work documentation.
- Ability to learn CEC software, rates, and procedures to assist members, employees and contractors. Effectively utilizes and applies computer, tablet and related technologies to the duties of the position.

- Effectively works as a team in the promotion and accomplishment of the organization's goals and objectives overall and as they relate to the department. Must contribute to a positive work environment, solve problems, and communicate solutions to others constructively.
- Maintains understanding of current industry trends, code changes, and/or regulatory updates by attending approved training opportunities.
- Proficient in software used by CEC including, but not limited to: Windmil/DEW, SCADA (ACS), iVUE (CIS, outage management) GIS, RTU software, and Microsoft Word, Excel, and Outlook.
- Must maintain a valid ND Driver's License of the type specified by the CEC as necessary to carry out the duties assigned to the position.

Required Education / Experience

- Completion of a B.S. degree in electrical engineering. Relevant experience may be considered as a substitute for required education.
- Experience in MS Office and knowledge of Windows and Linux operating systems.

Preferred Education/Experience

- Two-years of utility experience
- Customer service experience within a technical field.
- Experience with distribution system analysis, SCADA systems, and programming/integration of field devices.
- Professional Engineer registered in the state of North Dakota.

Attitude

- Must learn, understand, follow, and promote the cooperative philosophy; be sympathetic with, and be interested in furthering the Cooperative's objectives.
- Must be receptive to changes deemed necessary and be open to suggestions from supervisor as well as peers.

Physical Requirements

- Light work requiring exertion of up to 25 pounds of force occasionally and /or up to 10 pounds of force more frequently. Lifting and carrying of 10 to 50 pounds occasionally.
- The applicant must be able to use office equipment such as copier, computer and printer.
- The applicant must be able to use hand tools such as screwdrivers, wrenches, and multimeters.
- Must be able to perform work in outdoor settings in varying weather conditions.

Environment

- Work is performed in an office environment and around specialized substation equipment. Some work will take place at remote CEC substations or other locations.

- Hazards include electrical and mechanical. Safety equipment required.

Other Duties

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job. Duties, responsibilities and activities may change at any time with or without notice.

Signatures

This job description has been approved by:

Manager_____ Date _____

HR_____ Date _____

Employee signature below indicates the employee's understanding of the requirements, essential functions and duties of the position.

Employee_____ Date_____