

# ELECTRICAL ENGINEER 1

## Mountrail-Williams Electric Cooperative

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### 1 PURPOSE OF POSITION:

- a) To perform engineering and planning for the Coop's electrical system. Is involved in work on highly technical problems and participates in the formulation and enforcement of Coop policies, standards, and specifications.
- b) Exercises a high degree of decision-making that involves interpretation and application of Coop policy along with analysis of fact and circumstance. Has regular contact with other Coop staff, consultants, contractors, and members requiring considerable tact and diplomacy.
- c) Works to maintain power quality and reliability to all members of the Coop using standard utility practices, personal judgement, and confers with staff and consultants to create team orientated decisions in the best interest of the Coop.
- d) Provide technical expertise as needed internally and externally.

### 2 RESPONSIBILITIES AND AUTHORITIES:

- a) Designs switching procedures and system protection schemes.
- b) Meets and reviews with Coop staff, developers, consultants, and other agencies in the preparation of plans and specifications.
- c) Reviews plans, cost estimates, and staking sheets for projects, developments, and additions to the Coop's electrical distribution system.
- d) Interprets plans, blueprints, safety orders, and government rules and regulations as related to planning and engineering activities.
- e) Assists in the development of Coop construction standards and specifications.
- f) Develops short range and long-range work plans, including drawings, plans and specifications for the construction electrical facilities.
- g) Works with, prepares or assists in the preparation and maintenance of the Coop's electrical mapping system.
- h) Maintains engineering records and files.
- i) Prepares or assists in the preparation of environmental reviews, technical reports, equipment specifications, and bid specifications.
- j) Responsible for engineering design for new construction, existing plants, load flows, fault calculations, system specifications, etc.
- k) Provides assistance to ensure that adequate service, including continuity of service, to critical loads.
- l) Assists with technical support and lends guidance to construction coordinators in the design and layout of construction projects as needed – particularly with large power loads.
- m) Makes Coop Board presentations if instructed.
- n) Must possess and maintain a valid driver's license and operate a motorized vehicle without the assistance of another employee.

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- o) Performs any other duties assigned in order to fulfill the objective of the Cooperative.

### 3 POSITION SPECIFICATIONS

#### a) EDUCATION:

Possession of a Bachelor of Science degree in Electrical Engineering from a college or university accredited by the Accreditation Board of Engineering and Technology and possession of a Professional Engineer's license or the ability to obtain a North Dakota P.E. license within 5 years of employment.

#### b) WORK EXPERIENCE:

Entry-level engineering position. Previous experience is preferred but not required.

#### c) JOB KNOWLEDGE:

Must have working knowledge of generally accepted electrical engineering principles.

#### d) ABILITIES AND SKILLS:

Must possess knowledge about operating and electrical systems. Excellent computer skills are required. Must have good mathematical skills and an above average knowledge of physics, science and mechanics. Must be knowledgeable about current industry technology, concepts, principles, practices, and established procedures. Knowledge of transmission & PSSE load flow models are desirable. Ability to read and understand blueprints, staking sheets and specification books for maintenance and construction projects of the Cooperative. Strong analytical skills required. Presentation skills are required. Ability to review and approve items affecting the operation of the Cooperative and the delivery of reliable service. Ability and willingness to cooperate and work as part of a team. Good project management skills required. Ability to operate standard office equipment.

#### e) WORKING CONDITIONS:

Work is typically performed indoors at a desk and outdoor work is often required. Occasionally the job exposes employee to machinery and its moving parts, fumes and/or chemicals, and a noisy environment.

Normally have regular hours of work. Overtime may be required.

#### f) PHYSICAL REQUIREMENTS:

Sedentary work requiring exertion of up to 10 pounds of force occasionally and/or a negligible amount of force constantly to move objects. Light lifting of up to 20 pounds. Job requires sitting most of the time. Requires repetitive motions with hands and fingers such as dialing and keyboarding. Primarily inside work at a desk. Must be able to use office equipment such as a copier, computer and printer. Must be able to communicate to individuals and small groups. Requires analyzing data and reports, conducting research, and coordinating people and resources. Skills in developing plans, procedures and goals required. Must be able to present information to others and work under stress.

### 4 WORKING RELATIONSHIPS:

- a) Internal:

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- 1.) Establishing and maintaining pleasant working relationships with fellow employees in achieving the objectives of the Cooperative.
- b) External:
  - 1.) Cooperating with members and the general public and assisting them in a friendly and courteous manner. Also, promotes an understanding and acceptance of the Cooperative's objectives, viewpoint and programs.

### 5 MEMBER RELATIONS DIVISION:

- a) Electrical Engineer 1 shall have full authority to carry out the duties and responsibilities of this position in conformity with established policies and procedures.
- b) Electrical Engineer 1 should remember that he/she is accountable to the General Manager, Senior Electrical Engineer, and the management of the Cooperative for the efficient performance of these responsibilities and that, although some of the responsibilities may be delegated or assigned to another person, the accountability cannot be.
- c) Electrical Engineer 1 is encouraged to use initiative and judgment in making decisions, remembering that the Cooperative's best interests can be affected by his/her actions. He/she should feel free to make suggestions for the improvement of operations and efficiency.
- d) Electrical Engineer 1 shall secure the approval of the Senior Electrical Engineer or General Manager in making decisions when policies are not clear or adequate or require interpretation.

### 6 REPORTS TO:

- a) Senior Electrical Engineer.

### 1. DISCLAIMER:

- a) This job description is not intended to be all-inclusive; an employee will also perform other reasonably related job responsibilities as assigned by immediate supervisor and other management as required.
- b) MWEC reserves the right to revise or change job duties as the need arises. This job description does not constitute a written or implied contract of employment. Management reserves the right to change job descriptions, job duties, or working schedules based on its duty to accommodate individuals with disabilities.

Approved by:

Date:

Reviewed/Amended by: Scott Iverson, Senior Electrical Engineer

Date: October 3, 2024