

Staff Electrical Engineer

Willmar Municipal Utilities

Position Title: Staff Electrical Engineer
Department: Engineering
Immediate Supervisor: General Manager

Licenses Required:

- Professional Engineer (P.E.) Registration with the State of Minnesota in Electrical Engineering or ability to obtain within 4 years
- Valid Class D Driver's License

Primary Scope:

- Serve as a department head overseeing engineering activities
- Supervise the Engineering Technicians
- capital improvement projects
- Perform both supervisory and hands-on professional and administrative work related to electric transmission, distribution, power generation and water system
- Manage department operational and capital improvements budgets
- Conduct public education and outreach related to safety, energy efficiency and utility operations
- Perform additional duties as assigned by the General Manager or as apparent

Organizational Relationships:

- Prepare and present technical and operational reports
- Manage communication with consultants, utilities, contractors and equipment vendors
- Professional Associations
- Collaborate with internal department supervisors, staff and city staff

Essential Duties & Responsibilities:

- Analyze existing area transmission data with external agencies, model and analyze the transmission system against known operating conditions, to predict and enhance future system performance
- Provide operational analysis and strategic input for power generation
- Oversee and commission system studies and designs for substation, transmission and distribution infrastructure; supervise construction; and write procedures for switching and system operations
- Coordinate projects with internal and external stakeholders
- Manage, review and update, SCADA communications, fiber optic communications, and related technologies

- Maintain distribution system model; conduct studies (fault current, voltage, VAR levels, feeder balance, arc flash, system ratings, capacitor and other distribution needs) to improve reliability and system performance
- Operate, maintain and document systems including SCADA, load control, GIS, MDM, call center and substation devices; facilitate integration between systems
- Develop strategies and provide engineering input for generation alternatives
- Provide engineering guidance for the water system
- Oversee compliance and permitting for generation, transmission, and distribution systems
- Administer the NERC Compliance Program
- Maintain accurate documentation including drawings, records and reports
- Provide technical guidance and training to staff and management on engineering matters

Required Knowledge, Skills & Abilities:

Knowledge of:

- Utility operations, policies, and administrative procedures
- Federal, state, and industry construction/safety standards (OSHA, NEC, IEEE, NESC)
- Professional engineering ethics and conduct
- Electrical engineering principles related to utility transmission and distribution systems (formulas that pertain to the design, operation, and troubleshooting)
- APPA safety manual and general safety practices in utility environments

Skills in:

- Presenting complex technical information clearly to various audiences
- Researching and analyzing engineering data to make informed decisions
- Prioritizing, organizing, and implementing both short- and long-term goals
- Handling stressful situations and facilitating and engaging in group problem solving
- Computer skills with focus on system integration, communication protocols, and database management

Qualification:

- Bachelor's degree in electrical engineering or related field
- Minimum of five (5) years' experience including at least two (2) years of supervisory and administrative experience
- Preferred experience in electric generation, transmission, substation, and distribution operations and planning, maintenance, and project coordination
- Ability to acquire Professional Engineering (PE) certification in Minnesota within 4 years

Working Conditions:

- Primarily office-based with occasional field work at substations and transmission/distribution sites
- Exposure to energized equipment and outdoor working conditions
- Required to carry a utility issued cell phone and respond to after-hours or emergency situations as needed

Disclaimer:

The job description does not constitute an employment agreement between the employer and employee. The employer reserves the right to modify or change duties as organizational needs evolve.

EMPLOYEE ACKNOWLEDGMENT

Employee **Date**