

**MAJOR FUNCTION**

This is highly responsible professional engineering and administrative work that provides engineering support to the Electric Utility in one of the operational areas including: Power Delivery, Energy Supply, System Operations, or System Planning. An incumbent is considered to be a subject matter expert in the assigned area and is responsible for highly technical engineering work or administrative work such as complex design engineering, safety engineering services, complex engineering studies and analysis, training support, project management, quality assurance, budgeting, purchasing, operation/maintenance of electric utility facilities or systems. Work is performed independently under the general direction of an Engineering/Operations Manager or other supervisor and it is reviewed through observations, conferences, reports, and by results obtained.

**ESSENTIAL AND OTHER IMPORTANT JOB DUTIES****Essential Duties**

Directs and performs in-house development of plans, specifications for equipment repair, replacement, inspection and system modifications. Evaluates and prepares bid/proposal documents and develops award recommendations. Coordinates the activities of consulting engineering firms. Reviews proposals, plans and specifications developed by consulting engineers. Develops and manages vendor quality assurance programs. Reviews, analyzes and recommends operating and capital budgets and other budget requirements. Assists operational and maintenance personnel. Coordinates the preparation of various regulatory reports. Reviews specifications and drawings. Prepares specification for purchase of materials, equipment and capital improvement projects. Acts as Subject Matter Experts with respect to NERC Reliability and Cyber compliance standards. Ensures compliance with applicable NERC standards. Utilizes computers for performing project cost comparisons and analysis of alternatives. Prepares and presents feasibility reports, compiles data and participates in various committees and groups. Acts as the project manager on assigned maintenance and capital projects, with responsibility for supervising contract and city employees assigned to the project; ensuring work is completed according to specifications; ensuring work is completed on schedule and administering project budget and expenditures. May recommend the hire, transfer, promotion, grievance resolution, discipline and discharge of subordinate personnel. Stays current with industry technology and continues to develop professional knowledge and skills. Provides training to staff and mentors subordinates. Performs additional duties as required.

**Power Delivery:** Plans, designs and analyzes overhead and underground distribution and transmission lines, distribution substations and bulk power substations, low voltage switchgear, power communications, relay and protection and other power system facilities. Supervises the preparation of construction drawings by others. Prepares construction budget for major aspects of electrical construction. Prepares coordination studies for both transmission and distribution systems for the safe and reliable preparation of such systems. Understands and applies organizational standards and all applicable industry laws, codes, and regulations. Interacts with customers and provides design, cost estimation, and general customer service.

**System Planning:** Conducts computer simulated system studies, analyses and reports as required. Conducts studies and site analyses related to planning of generation, transmission distribution, substation and alternative/renewable energy facilities. Forecasts energy requirements and peak loads for budgetary, operation and planning purposes as required. Establishes and develops relationships with key participants in the alternative/renewable energy marketplace in order to capitalize on existing and future marketing opportunities. Maintains awareness of advances in alternative/renewable power supply options and related markets. Conducts activities related to the acquisition of alternative/renewable energy facilities including development of specifications, conducting competitive processes, evaluating alternative energy markets (including renewable energy

credits), reviewing technology advances, performing risk analysis and interacting and addressing regulatory issues (such as renewable portfolio standards).

**Energy Supply:** Plans, designs and analyzes power generating systems and equipment. Supervises the preparation of construction drawings by others. Develops programs for monitoring plant efficiency and plant betterment projects. Coordinates the activities of predictive maintenance throughout the plant.

**System Operations:** Provides engineering support to division field personnel. Supervises the System Operations System Protection and Communications team. Oversees and participated in the development of new system protection systems, modifications/upgrades to existing system protection systems. Participates in the development and modification/upgrade to and transformer control systems. Assists in the review, installation, testing and setting of system protection devices and transformer control systems. Analyses protective system operations to determine root cause of operations and develop corrective actions as identified.

#### Other Important Duties

Keeps abreast of general and job specific developments in area of responsibility. Performs special projects as assigned. Performs related work as required.

### **DESIRABLE QUALIFICATIONS**

#### Knowledge, Abilities and Skills

Thorough knowledge of the modern practices, methods, techniques and equipment used in activities involved in one or more of the areas of an electric utility operations. Ability to understand and apply computerized solutions to engineering problems. Ability to prepare and/or modify drawings in electronic format. Thorough knowledge of the use and care of electric utility equipment and systems. Thorough knowledge of the City's electrical generating, transmission and distribution system. Ability to take field notes and use them in drawing plans and specifications. Ability to plan projects, and use them in drawing plan specifications. Ability to plan projects, prepare cost estimates, conduct engineering research, make inspections, and prepare progress and accomplishment reports. Ability to manage complex projects and assignments for prolonged periods of time. Ability to manage change. Ability to maintain records and coordinate and/or supervise subordinates or assigned contractors. Ability to maintain effective working relationships with fellow employees, contractors and the general public. Ability to communicate clearly and concisely orally and in writing. Skill in the use of personal computers and associated programs and applications necessary for successful job performance.

#### Minimum Training and Experience

Possession of a bachelor's degree in engineering and five years of engineering experience in one or more of the electric utility operational areas. A master's degree in engineering may be substituted for one year of the required experience.

#### Necessary Special Requirements

Individuals in this classification are considered essential during emergency and storm situations and must be able to work 16 hours per day for extended periods of time and may be required to be away from their family.

Individuals in this classification must be available to serve on-call and are subject to having to work outside of their assigned shift/schedule to meet operational needs.

Employees in this classification that are required to have unescorted access to the Electric Control Center will be required to complete a personnel risk assessment consisting of an identity verification and seven-year criminal history screening (minimum) and maintain satisfactory clearance for continued employment.

If assigned to System Operations, must be able to distinguish between red and green.

An employee assigned to the Purdom or Hopkins Power Plants must be medically certified to wear a respirator and pass a respirator fit test prior to employment.

An employee assigned to the Purdom or Hopkins Power Plants must obtain within one year, and maintain for continued employment, HAZMAT and oil spill certifications within one year of employment.

An employee assigned to the Purdom Power Plant, or who may be occasionally required to have unescorted access to the Port Facility portion of the Purdom Power Plant, (as determined by the General Manager-Electric & Gas), must obtain Transportation Workers Identification Credentials (TWIC) within 90-days of employment, and must maintain such credentials throughout his/her period of employment in that capacity, as a condition of continued employment.

Must possess a valid Class E State driver's license at time of appointment.

Established: 06-30-12

Revised: 01-03-20

06-06-20

04-20-21