

SENIOR ELECTRIC ENGINEER

DEFINITION:

Under the general direction of the Municipal Utilities Director; the Senior Electric Engineer plans, organizes, directs, and coordinates the engineering activities of the Electric Department including system design, operation, and asset management for the electric distribution system which includes the substation, distribution system, electric SCADA, and advanced metering infrastructure. The Senior Electric Engineer also assists in the coordination of operations and maintenance activities of the utility department and outside agencies/utilities as needed.

The Senior Electric Engineer assists the Municipal Utilities Director through the attendance and involvement in various technical committees, public groups, and or specific technical projects. This may include acting as a voting member of various utility centric committees, and will require travel.

The Senior Electric Engineer must work closely and effectively with the Electric Operations Superintendent providing highly responsive technical support to assist in the efficient and prudent operation of the Electric Department. The Senior Electric Engineer exercises direct supervision over assigned professional, technical, field, and administrative support staff, which may include various consultants and/or contractors.

CLASS CHARACTERISTICS

Incumbents in this class exercise considerable discretion and independent judgment in the coordination and prioritization of projects including planning, design, contract administration, and operation of the City's electrical distribution system. Incumbents spend a significant percentage of their time in the management of work performed by technical staff and consultants as well as in providing professional engineering expertise in more complex assignments. This class differs from Municipal Utilities Director which has overall management responsibility for the entire Water, Wastewater, and Electric department functions, programs, and funding.

ESSENTIAL DUTIES:

- Develop and implement department goals, objectives, policies, procedures, and metrics to operate the Electric Department based upon best in class utility practices.
- Performs a variety of advanced technical and professional engineering tasks using sound engineering judgment, including project planning, analysis, design, construction management, contract administration; special studies and report preparation for various utility construction projects related to distribution line, metering, substation, and power engineering.
- Direct, oversee, and participate in the development of the Electric Operations work plan; prioritize work activities, projects, and programs; monitor and correct workflow issues.
- Work closely with the Electric Operations Superintendent in the review and evaluation of work methods and procedures.
- Serves as construction manager for various large or technical electric projects, oversees preparation of bid documents, oversees contractor performance and compliance with project plans and specifications; coordinates, schedules and oversees specialty inspections; reviews

and approves payment requests, and reviews technical submittals. Oversees the preparation of project documents including project justifications, budget analyses, preliminary cost estimates, and schedule.

- Prepares reports, analyses, and estimates for new or modified services and facilities, as well as long range maintenance and capital improvement needs. Justifies and recommends specific proposals and projects. Participates in the preparation of the Capital Improvement Plan and budget of the utility. Prepares the budget recommendations including projecting project costs, staffing needs and anticipated expenditures by fiscal year with detailed breakdowns and justification as assigned.
- Recommend the assignment of work, provide or coordinate staff training, conduct performance evaluations, implement discipline procedures as required, and maintain high standards necessary for the efficient and professional operation of the Department.
- Review project plans and drawings with supervisors and other staff as appropriate; recommend changes based on field observations and operational requirements; provide technical advice and assistance on difficult work problems.
- Research and develop material specifications and standards for electric equipment and construction practices.
- Review system equipment settings and operations, adjusting as necessary to provide a highly reliability distribution system.
- Modern design and distribution modeling including underground and overhead distribution systems design, voltage drop/correction, load flow, power factor correction, and system protection.
- Maintain up-to-date knowledge of and oversee the implementation of local, state, and federal regulatory compliance activities related to area of assignment.
- Represent the division and department to outside agencies and organizations; participate in outside community and professional groups and committees, providing technical assistance as necessary.
- Build and maintain positive working relationships with co-workers, other City employees, and the public using principles of good customer service.
- Assist and support the Electric Superintendent in the development, review and updating of safety training, procedures and standard operating procedures.
- Perform related duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

- Principles and practices of electrical theory and industry standards as applied to utility power systems.
- Methods, equipment, tools and materials used in high-voltage electrical underground, overhead, legacy and advanced electric metering, or substation construction, maintenance, or repair work.
- Pertinent local, State, Federal rules, regulations, laws, and common industry standards.
- Modern office procedures, methods, computer software and equipment including Microsoft Office, Microsoft Access, AutoCAD, CymeTCC, SEL Accelerator Quickset, SEL Accelerator RTAC, Wonderware, Kepware, ESRI GIS, or similar engineering software tools.
- Principles and practice of protection relaying , automation and control, and communication.
- Principles and practices of supervision, training, and performance evaluation.

- Principles and practices of work safety.

Ability to:

- Organize, implement, and direct distribution operations/activities, while maintaining a successful culture of safety and compliance.
- On a continuous basis, analyze budget and technical reports; interpret and evaluate staff reports; know laws, regulations and codes; observe performance and evaluate staff; problem solve department related issues; remember and implement various rules and procedures; and explain and interpret policy.
- On a continuous basis, sit at desk and in meetings for long periods of time; intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; use telephone; write or use a keyboard to communicate through written means; and lift or carry weight of 25 pounds or less.
- Analyze problems; identify alternative solutions, project consequences of proposed actions and implement recommendations in support of goals.
- Gain cooperation through discussion and persuasion.
- Interpret and apply City and department policies, procedures, rules, and regulations.
- Supervise, train, and evaluate personnel.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Communicate clearly and concisely, both orally and in writing.

Experience and Training:

Any combination of experience and training that would provide the required knowledge and abilities is qualifying. A typical way to obtain the required knowledge and abilities would be: Seven years of increasingly responsible experience in power utility systems construction, maintenance, and repair work, including two years of supervisory responsibility.

AND

Training:

Equivalent to a Bachelor's degree from an accredited university with major course work in three-phase power systems, electric engineering, or a closely related field.

AND

License and Certificate:

Possession and ability to maintain licensure as a Profession Electrical Engineer with the State of California.

Possession of, or ability to obtain and maintain, a valid California driver's license within 6 months of hire