

PRINCIPAL POWER ENGINEER

DEFINITION

To plan, organize and direct professional electrical engineering activities related to the design, investigation, and construction of electric utility projects; to perform duties requiring specialized knowledge; and to provide administrative support to assigned supervisor.

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from higher level management staff.

Exercises direct supervision over professional and technical staff.

EXAMPLES OF ESSENTIAL DUTIES - Duties may include, but are not limited to, the following:

Recommend and implement section goals and objectives; establish performance standards and methods for professional engineering work related to assigned section operations; develop and implement policies and procedures.

Plan, prioritize, assign, supervise and review the work of professional staff assigned to design, investigate, and construct electric utility projects.

Evaluate operations and activities of assigned section; determine section priorities; implement improvements and modifications; prepare various reports on operations and activities.

Implement schedules and methods for the design and preparation of plans and specifications for the construction of electric transmission, distribution and substation projects; research project design requirements; perform calculations and prepare estimates of time and material costs.

Participate in budget preparation and administration, including capital improvement budget; prepare cost estimates for budget recommendations; submit justifications for services, labor, and materials; monitor and control expenditures.

Delegate routine research, design, and drafting tasks to technical staff; review completed work and identify solutions for solving design, construction and maintenance and operational problems; research publications and industry information sources as needed.

Maintain the Electric Department's circuit loadflow and analysis program; prepare short circuit, loadflow and coordination studies; review switching schedules of complex load transfers; monitor system power factor reports.

Recommend capacitor installation and prepare capacitor control settings to maintain system power factor; review switching schedules of complex load transfers.

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Prepare requests for bids and proposals; review bids and proposals, recommend award of contracts and monitor progress of capital improvement projects and professional services contracts; prepare equipment specifications and recommend installation; prepare job packages for line construction.

Prepare estimates and feasibility reports for new or modified electrical transmission, distribution and substation projects; prepare substation regulator settings.

Prepare conduit and feeder master plans for the City-wide electric distribution system; prepare relay settings; identify system supervisory control and data acquisition (SCADA) requirements.

Oversee construction work in progress and inspect projects for various capital improvement projects; conduct fault investigation; perform testing for acceptance of work and equipment.

Respond to distribution, transmission and generation system outages and emergencies.

Participate in the selection of staff; provide or coordinate staff training; work with employees to correct deficiencies; implement discipline procedures.

Answer questions and provide information to the public and city leaders; investigate complaints and recommend corrective action as necessary to resolve complaints.

Build and maintain positive working relationships with co-workers, other City employees and the public using principles of good customer service.

Perform related duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

Principles and practices of professional electrical engineering as applied to the design and construction of electric utility facilities.

Project management, including cost estimating and budget monitoring and control.

Modern office procedures, methods and computer equipment including word processing, database and spreadsheet applications.

Principles and practices of supervision, training and performance evaluations.

Principles of budget monitoring.

Principles and practices of safety management.

Pertinent local, State, and Federal codes, regulations, and laws, and electric utility industry standards.

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Ability to:

Organize, implement, and direct section activities related to professional engineering in support of the design, investigation, and construction of electric utility projects.

On a continuous basis, know and understand all aspects of the job; intermittently analyze work papers, reports and special projects; identify and interpret technical and numerical information; observe and problem solve operational and technical policy and procedures.

On a continuous basis, sit at desk for long periods of time; intermittently bend, squat, climb, kneel or twist while performing field work; intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; use telephone, and write or use a keyboard to communicate through written means; and lift or carry weight of 10 pounds or less.

Prepare complex engineering plans and specifications.

Prepare complex engineering computations.

Interpret, explain and apply City and department policies and procedures.

Assist in the development and monitoring of an assigned program budget.

Prepare and present technical reports.

Communicate clearly and concisely, both orally and in writing.

Supervise, train and evaluate assigned staff.

Establish and maintain effective working relationships with those contacted in the course of work.

Experience and Training

Experience:

Two years of responsible professional engineering experience similar to that of a Senior Power Engineer with the City of Roseville, including one year of lead or supervisory responsibility

AND

Training:

A Bachelor's degree from an accredited college or university preferably with major course work in Electrical Engineering or a related field.

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License and Certificate:

Possession of a valid California driver's license by date of appointment.

Possession of a certificate of registration as a Professional Engineer by date of appointment. California registration is desirable but not required.

04-08-23 Principal Power Engineer