



CITY OF PASADENA

Department of Human Resources
100 N. Garfield Ave., Rm S135, P. O. Box 7115
Pasadena, CA 91109-7215
(626) 744-4366

<http://www.cityofpasadena.net/humanresources>

**INVITES APPLICATIONS FOR THE POSITION OF:
Principal Electrical Engineer (Substations)**

An Equal Opportunity Employer

SALARY

\$59.82 - \$74.78 Hourly \$10,369.04 - \$12,961.31 Monthly \$124,428.51 - \$155,535.74
Annually

OPENING DATE: 03/08/18

CLOSING DATE: 03/22/18

THE POSITION

Principal Electrical Engineer

\$59.82 - \$74.78 Hourly
\$10,369.04 - \$12,961.31 Monthly
\$124,428.51 - \$155,535.74 Annually

Electrical Engineer

\$52.30 - \$65.37 Hourly
\$9,065.00 - \$11,331.25 Monthly
\$108,780.05 - \$135,975.00 Annually

The City of Pasadena Water & Power Department is seeking a highly qualified Professional Electrical Engineer to manage the staff and projects assigned to the substations engineering section of the Power Delivery division.

Appointment will be made at the Electrical Engineer or Principal Electrical Engineer level depending on experience and qualifications.

Distinguishing Characteristics

Principal Electrical Engineer is the section management-level class in the electrical engineering class series. Staffing for the class is found in the Department of Water and Power. Incumbents require registration as a Professional Electrical Engineer and are responsible for managing assigned power system capital improvement design, construction and maintenance projects for the department's power grid, power delivery substations, automated control and protection systems, telecommunications systems, other power systems and facilities. Incumbents perform and administer the most complex professional engineering work requiring a substantial level of professional training and experience related to power substation engineering. Incumbents are also responsible for planning and directing the work of assigned professional, technical and administrative staff. Assignments are general and of a continuing nature, requiring the exercise of independent judgment and initiative in scheduling, assigning and coordinating the work with other units and customers, contractors, consulting engineers and entities.

Principal Electrical Engineer is distinguished from Electrical Engineer in that incumbents in the

former class are not section managers and perform the most complex professional electrical engineering work, requiring a lesser degree of engineering experience.

ESSENTIAL FUNCTIONS

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class.

1. Provides day-to-day leadership and works with staff to ensure a high-performance, customer service-oriented work environment that supports achieving City and departmental mission, objectives and service standards; applies best practices and quality assurance processes to assigned areas of responsibility; enforces the maintenance of safe working conditions and ensures safe work practices are followed by staff; provides leadership to ensure a fair and open work environment in accordance with the City's commitment to equal employment opportunity.
2. Plans, manages and evaluates Power Substation Engineering Section; participates in development and management of the power system capital improvement program including development of economical, prioritized design projects to address system upgrades and improvements, major system maintenance requirements and new regulatory compliance requirements; oversees development of complex engineering design and construction packages; determines the technical and economic feasibility of projects; directs the development of engineering designs, plans, specifications and estimates for capital improvement projects; manages project cost estimates and budgets.
3. Perform power substation planning activities and studies; utilizes electrical system planning tools to evaluate substation and transmission system conditions and recommends improvement plans; conducts long range planning studies; analyzes electrical outages and recommends mitigating actions to improve system reliability.
4. Ensures that all work practices and documentations are in compliance with industry and safety standards such as North American Electric Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) reliability standards, California Public Utilities Commission (CPUC) General Order 174, and California Occupational Safety and Health Administration (Cal/OSHA).
5. Directs the preparation of Requests for Proposal for design and/or construction projects, including overseeing bid evaluations, selection of successful bidders and preparation of agenda reports, presentations, and other materials for approval; negotiates or oversees the negotiation of contracts and contract terms; reviews and approves contract documents; oversees administration of contracts including review of change orders and amendments to consulting and construction agreements; prepares or reviews regular project status reports to department management; conducts field inspections to ensure worksite safety and conformance with specifications and City standards; participate in resolving questions/issues regarding the project from construction inspectors and field staff during construction phase; ensures accurate and up-to-date documentation of as-built facilities and systems in various databases; oversees up-to-date documentation of power delivery records for devices and their interconnections.
6. Conducts highly complex systems analysis and reliability studies including under-frequency load shedding (UFLS) analyses; leads research and development initiatives for upgrading automation, protection, control, metering and telecommunications systems; manages the acquisition and maintenance of custom software for engineering analysis, modeling and outage management.
7. Directs the preparation of complex substation protection/communication settings and designs including, but not limited to, equipment installations/replacements, wiring, control,

protection, metering, and communications.

8. Monitors, investigates, analyzes and responds to or oversees response to power delivery system issues and equipment malfunctions or failures on an on-going basis; directs preparation of power outage analysis reports.

9. Assists other departments, agencies and the public with various engineering issues/concerns; proposes changes to construction standards and requirements; prepares City Council agenda reports/resolutions and makes presentations to the Council; responds to data requests and audits by state and federal regulatory agencies.

QUALIFICATION GUIDELINES

MINIMUM QUALIFICATIONS

Knowledge of:

1. Theories and principles of electrical engineering and their applications related to the design, construction and maintenance of power distribution/transmission substations.
2. Overall design and operations of a power utility system and subsystems including generation, 220KV BES interfaces, transmission, power delivery stations and distribution systems.
3. General civil and mechanical engineering principles as they apply to the overall design and integration of power generation, substation and distribution infrastructures.
4. Project management principles, methods and practices for planning, designing, budgeting, scheduling, monitoring performance and evaluating results.
5. Applicable laws, regulations and codes related to utility electrical engineering including California Public Utilities Commission General Orders, Institute of Electrical and Electronic Engineers Standards and a variety of NERC/WECC and other regulatory compliance codes, standards and guides.
6. Professional standards, modern developments, current literature and sources of information regarding electrical engineering.
7. Automation, metering and control technologies.
8. Safety policies and practices applicable to the work.
8. Principles and practices of effective management and supervision.
9. City human resources management policies and labor contract provisions.
10. Practices and techniques of sound business communications.
11. Information technology and computer capabilities applicable to substation engineering functions, including system modeling and other custom engineering analysis software, control and automation technologies.
12. Substation construction design and protection/control schemes; protection coordination theories and applications.

Ability to:

1. Direct preparation of and review complex substation engineering designs, relay protection settings, plans, specifications, cost estimates and legal contracts.
2. Direct and participate in difficult technical research and analyze complex engineering and mathematical problems, evaluating alternatives and recommending or adopting effective courses of action.
3. Plan, organize, manage and integrate engineering design and construction activities for major substation capital improvement or maintenance projects.
4. Utilize computer software to perform system load flow and short circuit studies.
5. Plan, supervise, schedule, assign, review and evaluate the work of assigned professional and technical staff, as well as contractors and consultants; effectively manage assigned staff and resolve conflicts in accordance with the City policies and procedures.
6. Understand, interpret, explain and apply federal, state and local laws, regulations, codes and policies applicable to substation engineering functions.
7. Organize, set priorities and exercise sound independent judgment within areas of responsibility.
8. Represent the department and City effectively in dealings or negotiations with contractors, other agencies and the public.
9. Present proposals and recommendations clearly, logically and persuasively.
10. Operate a computer using standard business and engineering software.
11. Use tact and diplomacy in dealing with sensitive and complex issues, situations and concerned people.
12. Establish and maintain effective working relationships with all those encountered in the course of work.

Education, Training and Experience:Principal Electrical Engineer

Graduation from an accredited four-year college or university with a major in electrical engineering or a related engineering discipline, and at least eight years of progressively responsible substation engineering experience, at least three years of which were at the level of the City's Electrical Engineer class; or an equivalent combination of training and experience.

Electrical Engineer

Graduation from an accredited four-year college or university with a major in electrical engineering or a related engineering discipline, and at least four years of progressively responsible substation engineering experience at the level of Associate Electrical Engineer; or an equivalent combination of training and experience.

Selection Process

Applicants who appear best qualified based on their application submitted will be invited to any combination of written, performance or oral appraisal to further evaluate their job-related experience, education, knowledge, skills and abilities. Probationary work test period is one year.

Vacancies

There is currently one vacancy in the Power Delivery division of the [Water and Power Department](#).

SPECIAL REQUIREMENTS

A valid California Class C driver's license and the ability to maintain insurability under the City's vehicle insurance program.

A certificate of registration as a Professional Electrical Engineer issued by the California State Licensing Board.

APPLICATIONS MAY BE OBTAINED AND FILED ONLINE AT:
<http://www.cityofpasadena.net/humanresources>

EXAM #18-094
JA

Principal Electrical Engineer (Substations) Supplemental Questionnaire

- * 1. Do you possess a Bachelors degree from an accredited four-year college or university with a major in electrical engineering AND at least four years of progressively responsible substation engineering experience at the level of Associate Electrical Engineer or higher AND possess a certificate of registration as a Professional Electrical Engineer issued by the California State Licensing Board ?

Yes No

* Required Question

Important Information

EQUAL EMPLOYMENT OPPORTUNITY: The policy of the City shall be to provide equal opportunity to all persons and to prevent unlawful denial of opportunity to any individual because of race, gender, religious creed, sexual orientation, color, marital status, national origin, parental status, ancestry, disability (including AIDS), medical condition (cancer), or age.

APPLICATIONS: A completed official City application and any required supplemental material must be submitted and date stamped by the Human Resources Department by the deadline stated on the job announcement. A separate and complete application must be filed for each position.

EXAMINATION PROCESS: If three or less qualified applications are received, any further examination process may be waived, and the applicants may be referred to the appointing authority for appointment consideration.

SALARIES: All stated salaries are based on present information, subject to change. Appointments are generally made at the minimum salary. All salaries are subject to statutory payroll deductions. Federal law requires that all new employees contribute 1.45% of their monthly salary to the MEDICARE system.

DIRECT DEPOSIT: All City employees will be required to sign up for electronic deposit for their payroll check and will only have access to their payroll information electronically.

PHYSICAL REQUIREMENTS AND SPECIAL CONDITIONS: Applicants must be free from conditions which would preclude satisfactory performance of the essential functions of the job for which applied. Subsequent to a job offer, the City of Pasadena requires a pre-employment physical and drug test consistent with current State and Federal law. Candidates will be examined by a City physician, at City expense, before appointment is approved. Candidates are cautioned not to resign or give notice to present employers until they qualify on the medical examination. The City of Pasadena conforms with State and Federal obligations to make reasonable accommodation for applicants and workers with disabilities. The Human Resources Department asks that it be advised of special needs prior to the filing deadline.

Pasadena residency is a factor in making an employment offer, provided all other qualifications are equal amongst other candidates.

Many positions involve frequent travel to various sites and locations to fulfill job responsibilities and may require a valid California Drivers License or other alternative transportation arrangements made by the incumbent. Verification of a valid license is required via a DMV printout prior to appointment, and a safe driving record.

AGENCY SHOP REQUIREMENTS

Some job classifications are in collective bargaining units, the employees of which are required to join a union or pay an equivalent service fee as a condition of employment. Positions in the PACTE/LIUNA, Local 777, bargaining unit are required to enroll in and contribute to the LIUNA pension fund. Contact PACTE/LIUNA, Local 777, for more information.

SLIDING CLASSIFICATIONS AND UNDERFILLING POSITIONS: Some classifications are designated as sliding classifications wherein an incumbent may be reclassified to the next budgeted higher level within the job series when qualified and upon demonstrated ability to perform the higher level job duties. Some positions may be filled at a lower classification level than what is budgeted, and the incumbent may be reclassified up to the budgeted classification when qualified and upon demonstrated ability to perform the higher level job duties.

BENEFITS for most Regular Full Time Employees (Benefits vary for part-time and temporary employees):

Ten days annual vacation for first 5 years of employment; 12 paid holidays per year; paid sick leave, medical and dental plans, and basic and supplemental life insurance; membership in the California Public Employees' Retirement System, credit union, deferred compensation program.

VETERAN'S PREFERENCE POINTS: For Open Recruitments, three additional points will be added to the passing score of Veterans who are honorably discharged with one year of active military duty. The DD214 form or other proof must be submitted at time of application.

PRIDESHARE II PROGRAM: All City employees are required to register in the City employee rideshare program. Solo drivers pay a monthly Clean Air/Parking Fee of \$35.

CIVIL DEFENSE: In accordance with State law, all City of Pasadena employees are disaster service workers and may be required to report for duty, or remain on duty, in the event of a disaster.

NOTE: The provisions of this job announcement do not constitute an expressed or implied contract. Any provision contained in this job announcement may be modified or revoked without notice.

JOB LINE: The City operates a 24-hour Job Line number, (626) 744-4600, which lists current job opportunities.

HUMAN RESOURCES WEBSITE: www.cityofpasadena.net/humanresources

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