

## Job Title: Power Generation Electrical Engineer, Senior (Open Until Filled)

**Minimum Pay Rate:** \$156,000.00

**Maximum Pay Rate:** \$206,606.40

**Civil Service Status:** Civil Service

### Notes:

- This position is being posted at both the journey and senior levels; however, only one hire will be made from these two postings. Candidates interested in both levels must apply separately to each posting.
- This position will be posted until a sufficient number of qualified applicants has been received but may close at any time after **October 26, 2026**.

SMUD, a community-owned, not-for-profit utility serving over 1.5 million customers in Sacramento, has a tradition of providing reliable and affordable electricity for over 75 years. As part of our diverse energy portfolio, hydroelectric power plays a vital role.

SMUD's Power Generation hydro maintenance engineering group is seeking an experienced Senior Electrical Engineer interested in supporting the ongoing maintenance of, and upgrades to, the hydropower system. The ideal candidate is a good communicator, is comfortable managing projects in the field and likes to be hands on in support of skilled craft workers on construction projects.

This position reports to our Fresh Pond maintenance facility near Pollock Pines, California. The facility is responsible for the maintenance and construction activities necessary to service 19 dams, nine powerhouses, reservoirs, interconnecting tunnels, penstocks, and support structures. The role involves managing a diverse range of projects related to SMUD's assets. Responsibilities encompass all aspects of engineering including project management, sizing and selection of key electrical equipment, troubleshooting, and ensuring compliance with electrical standards.

If you have experience in power generation, project management, and regulatory compliance, and enjoy working in an outdoor environment, this position offers a meaningful opportunity to impact SMUD's energy future.

**Application Preparation: As part of the application process, candidates will be required to answer one (1) question when submitting their application. Please be advised, "Refer to resume" responses will not be accepted**

### Purpose

Provides senior-level technical expertise to manage and execute complex electrical engineering designs and project coordination for new construction and modifications of SMUD's power generation facilities. These facilities include hydroelectric powerhouses, thermal plants, gas pipelines, utility-scale photovoltaic systems, battery storage, and wind energy projects. Applies professional engineering fundamentals to ensure all work complies with regulatory requirements and restrictions while maintaining efficiency, safety, and cost-effectiveness.

### Nature and Scope

There are four (4) levels in this job classification series that have similar job content but with progressively more challenging degrees and levels of skill, responsibility, knowledge, experience and qualification requirements:

**Flex Classifications (that permit progression from lower-level classes to higher level classes without examination based upon assessment of an individual's experience and performance) within the series:**

- Entry: Incumbent acquires knowledge, skills and abilities to perform the tasks associated within the series but are not yet demonstrating these at the Journey level.
- Journey: Incumbent is demonstrating the required skills and knowledge to independently perform the full scope of the job.

**Non-Flex Classifications (that promote from lower-level classes to higher level classes and require an examination, such as an interview, based upon individual experience and performance) within the series:**

- Senior: Advanced journey level resource who is responsible for advanced assignments, as dictated by the work needing to be performed; may serve in a lead capacity.
- Principal: Subject matter expert/lead level and is responsible for leading the most advanced work, as dictated by the work needing to be performed.

Entry to Journey: Incumbents at the entry level are required to successfully “progress” to the journey level within 60 months of appointment to remain within the job series.

Seniors and Principals must be hired through a promotional process and do not automatically progress from lower levels in the series.

## **Duties and Responsibilities - All Assets**

### **Power Generation - All Assets**

- Drive electrical engineering projects to develop and integrate new designs and enhancements for power generation assets, maximizing energy efficiency, ensuring operational effectiveness, and adhering to regulatory requirements.
- Assume full project management responsibilities, including project planning, team assembly, coordination with internal and external stakeholders, and tracking scope, budget and timeline. Develop project controls and manage resources efficiently.
- Prepare comprehensive project documentation, ensuring clarity and adherence to industry standards.
- Develop and implement testing plans and procedures to evaluate performance and efficiency of electrical systems; oversee installation and testing to ensure contractor compliance with design specifications and safety standards.
- Conduct problem diagnosis and resolution for assets, applying expertise to implement effective solutions. Establish technical guidance and standards for the maintenance of electrical equipment, providing training and technical documentation to electrical staff.
- Drive development of engineering specifications and bid package for own procurement efforts; oversee procurement activities of entry- and journey-level engineers. Collaborate with Supply Chain, Legal, and department managers to secure essential equipment and services for project execution.
- Act as a liaison with external governmental, regulatory, and private agencies; interpret regulations and facilitate compliance efforts while representing SMUD in public hearings and meetings.
- Maintain expertise in industry best practices by attending seminars and engaging in professional organizations to stay current with technological advancements.
- Identify and resolve complex electrical issues, conduct data interpretation, and provide recommendations for equipment improvements and operational needs.
- Assist in administering the department budget by participating in planning, monitoring and revising project schedules, work plans, and expenditures.
- Performs other related duties as needed; schedules, hours and locations may fluctuate based on business needs.

## **Duties and Responsibilities - Hydroelectric Generation**

- Drive the design, maintenance and rehabilitation of hydroelectric powerhouses' electrical infrastructure, focusing on main generator circuits, excitation power equipment, high/medium/low voltage power distribution, switchyard/substation equipment, to ensure operational safety, system reliability, and plant availability.
- Develop and review electrical one-line diagrams, AC/DC schematics and controls, wiring diagrams, cable schedules, equipment layouts, and installation details for generators, transformers, bus work, switchgear, grounding systems, arc flash studies, and protection systems for hydroelectric facilities, ensuring all documentation and designs support safety standards and reliable long-term operation.
- Specify, coordinate and oversee testing, troubleshooting and commissioning activities for large hydro generators, power transformers, high-voltage bus/switchgear, and protection relays, ensuring adherence to safety protocols and maximizing system reliability and availability.
- Develop and update standards and procedures for hydroelectric electrical system maintenance, reliability assessments, and capital projects, with an emphasis on electrical safety, protective relaying, and power system performance to reduce risk and maintain consistent plant operation.
- Drive electrical aspects of FERC and NERC hydroelectric regulatory compliance actions, including documentation and reporting for power system assets and event reviews related to electrical equipment, supporting a culture of compliance, safety and reliability.
- Serve as a technical resource for electrical failures, troubleshooting electrical faults, and root cause analysis related to generator, transformer or switchgear performance, ensuring prompt mitigation of safety hazards

and restoration of stable operation.

- Mentor and provide technical training on hydroelectric electrical system topics to engineers, technicians and craft staff, with a focus on safe work practices, reliable system operation, and maintaining plant integrity.
- Participate in hydro modernization projects by supporting selection and integration of protective relays, auxiliary power systems, and advanced electrical monitoring devices to improve asset reliability, operational safety, and plant availability.
- Support environmental and dam safety efforts as they relate to the integrity and reliability of electrical supply and emergency power for spillway actuation and critical station systems, ensuring compliance with all safety standards and regulatory requirements.
- Performs other related duties as needed; schedules, hours and locations may fluctuate based on business needs.

## Required Education

- Bachelor's degree majoring in electrical engineering or related field from an accredited college or university.

## Required Experience Qualifications

- At least five (5+) years of progressively responsible and relevant experience in electrical engineering and design, including at least three (3+) years focused on supporting power generation assets such as thermal, hydro, wind, photovoltaic generating resources, battery systems, and/or natural gas pipelines.

## Required Licenses/Certificates

- Professional registration as an electrical engineer in the state of California.

## Knowledge Of

- Advanced electrical theory and engineering design fundamentals.
- Design, installation, operation, repair, and economic evaluation of power system components, including generation units, station services, transformers, switchyards, high-voltage transmission systems, and integrated control and protection systems such as protection relays, measurement, regulation, and operation.
- Generation and transmission system operations on an advanced level.
- Federal, state, and local laws, codes, and regulations governing electrical codes and standards.
- Planning, organizing, directing, and controlling work activities efficiently.
- Project monitoring and management procedures and best practices.
- Budget preparation and financial administration fundamentals.
- Standard office procedures, methods, and equipment, including the use of computers and relevant software applications.
- English language usage, including spelling, grammar, and punctuation.

## Skills To

- Utilize personal computers, relevant systems, and software applications.
- Collect, assess, and interpret test data related to electrical power systems.
- Evaluate power system operations and prepare technical specifications.
- Read and interpret engineering documents and drawings.
- Evaluate complex vendor bid submittals.
- Estimate time, material, and labor costs for electrical engineering projects.
- Plan, oversee, and review the work of others.
- Assess and interpret regulatory codes and regulations.
- Work effectively with external regulatory agencies.
- Demonstrate strong skills in team management, including motivation, coaching, mentoring, training, and staff development.
- Establish, manage, monitor, and update project budgets.
- Compile and prepare technical, statistical and analytical reports and presentations.
- Interpret and apply applicable federal, state and local laws, codes and regulations.
- Communicate effectively orally and in writing with internal and external stakeholders.
- Establish and maintain effective working relationships internally and externally.

## Desirable Qualifications

- Strong knowledge of design and maintenance of power generation electrical systems – including excitation, transformers, transmission, automation, and protection
- Proven ability to manage complex capital and maintenance projects from start to finish
- Track record of field work in collaboration with skilled trades.
- Experience with asset management strategies and long term planning.
- Deep understanding of regulations that apply to our generation assets (FERC, NERC, electrical codes) and a track record of keeping projects compliant
- Strong communication skills, orally and in written reports

## Physical Requirements

### Sacramento Municipal Utility District (SMUD) - Who We Are

As the nation's sixth-largest community-owned electric service provider, we're proud of our reputation as one of the best places to work in Sacramento. Our employees tell us in our engagement surveys they're "Happy, satisfied and engaged" which helps create a workplace that best serves our customers. Sacramento was named as the 2nd happiest place to work in America by Forbes Magazine. Lake Tahoe, San Francisco and the world-renowned Napa Valley are within easy driving distance of our locations.

### Our Commitment to Diversity & Inclusion

SMUD celebrates diversity, and inspires an inclusive culture based on trust and respect to create belonging and connection among our employees, customers, and communities. By working together, we are powering positive, equitable opportunities for all. We aspire to be a workplace where you can be yourself, achieve your best, and thrive together.

An example of our commitment to Diversity, Equity, Inclusion, and Belonging is when SMUD signed the California Equal Pay Pledge in 2020. This requires equal pay for employees who perform "substantially similar work," when viewed as a composite of skill, effort, and responsibility at the time those employees started within that classification. As such, initial hiring salary range is not subject to negotiation and salaries will vary over time based on performance.

SMUD is proud to be an equal opportunity employer. We do not discriminate in employment decisions on the basis of race, color, religion, gender (including pregnancy), national origin, political affiliation, sexual orientation, gender identity or expression, marital status, disability, genetic information, age, veteran status, or any other applicable legally protected characteristic. All employment decisions are made on the basis of individual qualifications, merit, and business needs and interests.

### Why Sacramento, California?

The capitol of California, Sacramento is the state's sixth-largest city, and the 35th largest in the U.S. Local universities include California State University, University of the Pacific's McGeorge School of Law, and the University of California, Davis and several competitive community colleges. The UC Davis Medical Center, a world-renowned research hospital, is one of more than a dozen hospitals and shared services centers in the Sacramento region. Part of the agriculturally-rich Central Valley, Sacramento is at the forefront of the farm-to-fork food movement. Northern California is home to some of the country's top technology companies, including Google and LinkedIn, and a multitude of startups in many industries. Sacramento is home to the NBA Kings, the River Cats (AAA baseball), the Republic FC (soccer) and the San Francisco Giants, NBA Warriors and NFL 49er's aren't far away. Sacramento offers an affluent liberal arts community with Broadway, Mondavi Center, Crocker Museum and summer musical theater to name a few.

### Onsite Work

This position will be required to work onsite at our field office in Pollock Pines, CA. Most employees select a 4 x 10h schedule, but other schedules are available. Employees may be eligible for reduced cost vanpools and EV Charging.

### CalPERS

SMUD is a CalPERS agency. As a member of the California Public Employees' Retirement System (CalPERS), SMUD offers eligible employees access to a defined benefit pension plan along with other valuable retirement and health benefits. This program helps provide financial security both during your career and after retirement. To learn more about CalPERS and the benefits it offers, please visit [www.calpers.ca.gov](http://www.calpers.ca.gov).

