***JOB PURPOSE***

Performs and leads the performance of transmission planning studies and related engineering analyses and activities; and provides project management and SMUD representation to other utilities and external agencies to ensure an adequate, reliable, and cost effective transmission system for SMUD.

***NATURE AND SCOPE***

Serves as a technical or functional expert or consultant providing expertise and/or direction in one or more areas of a professional discipline and assumes responsibility for resolving complex problems and overseeing complex projects. May also serve in a Lead role and assist in planning, coordinating, prioritizing, monitoring and evaluating the work results in assigned area and in selecting, training, motivating, evaluating and developing lower-level personnel.

***ESSENTIAL FUNCTIONS***

*Work may include, but is not limited to, the following: (NOTE: While in general all the functions and requirements listed are essential, individual positions and/or locations may not require all duties be performed.)*

1. Provides transmission planning expertise and ensures the availability of timely, accurate, technical information on SMUD transmission projects; provides technical support to co-workers, other departments, and SMUD management by conducting studies and technical and economic evaluations; prepares written summaries, reports, and recommendations for SMUD projects; responds verbally or in writing to routine and time-critical inquiries from SMUD Board, regulatory bodies, other utilities, public agencies and other SMUD departments on transmission projects.
2. Ensures the availability of cost effective, timely, accurate, and up-to-date information on SMUD transmission lines and major electrical equipment; collects, verifies, organizes, and maintains SMUD’s data, in electronic format, on transmission lines and major electrical equipment to enable the transmission planning group and other SMUD departments to perform timely, accurate short circuit, load flow and stability studies by organizing the work group to enter, audit and maintain accurate data; uses computer expertise to facilitate selection, application, and maintenance of appropriate software programs; coordinates data capture, entry, and retrieval/exchange of information.
3. Plans, coordinates, prioritizes, monitors, guides, reviews, and conducts work activities associated with department internal/external projects in accordance with established task objectives and schedule as outlined in the project plan/contract; ensures work activities successfully contribute to the overall completion of department projects.
4. Ensures the technical development of transmission planning staff and quality work products; conducts technical review of analyses, calculations, reports, and recommendations prepared by less experienced staff members and outside contractors or consultants; provides direction, guidance, suggestions and/or hands-on training to support improvements and quality standards.
5. Ensures the adequacy and reliability of SMUD transmission system; provides technical support and guidance/consultation to Power Planning, Power Contracts, Project Development, Electric System Design, and Energy Operations departments by evaluating projects and proposals; prepares reports; makes recommendations on transmission system losses, system reliability, voltage profiles, and other related issues.
6. Represents SMUD’s positions, priorities and interests on multi-utility projects and to WECC subcommittees and regulatory bodies by leading SMUD and multi-utility work groups; leads or participates in review committees; presents or participates in project reviews by regulatory bodies and other agencies.
7. Recommends and advises SMUD management in strategic and policy-related matters and represents SMUD’s position to ensure its interests and influence are brought to bear in stakeholder forums and policy formulation; provides recommendations for strategic direction to SMUD management by communicating with SMUD staff and management to identity and articulate multiple overlapping issues affecting SMUD business and policy positions; analyzes issues addressed by various agencies, including ISO, RTO, CEC, CPUC, EOB and CPA; assesses the impact of proposed changes in agency policy on SMUD operations; formulates and presents recommendations on policy positions to SMUD management to support decision making and achieve optimal solutions; participates in stakeholder forums which address the development of related policy directives and presents SMUD positions to influence policy outcomes.
8. Supports power system operations and ensures compliance with control and reliability standards; provides outage coordination and direct support to operations by performing and leading power system analysis and developing new programs that aid power system operators in meeting control area and reliability standards.
9. Reviews and directs the work done by contract consultants on selected projects in order to ensure that contract consultant work meets SMUD policies and quality standards and contract terms.
10. Supports the development of SMUD technical staff and ensures availability and use of advanced analytical techniques and criteria for new and unique engineering applications; contributes to the development of technical expertise in transmission planning by preparing and/or arranging professional quality technical seminars and presentations to train less-experienced engineers in their areas of responsibility; develops new models and modeling capability for transmission planning; develops advanced analyses techniques and criteria to address and apply to new and unique issues in transmission planning.
11. Plans, coordinates, prioritizes, monitors, guides, and participates in work activities with work-unit employees to meet established task objectives, goals, and deadlines by following established policies and precedents; communicates with team members and incorporates their input to processes and techniques; provides staff training; promotes staff safety and a safe work environment; assists in selecting and orienting new personnel; assists in evaluating work performance results; participates as a team member in accomplishing objectives; refers problems to supervision where solutions are not readily achievable.
12. Performs related duties as required.

***MINIMUM QUALIFICATIONS***

***Knowledge of:***

Power system planning techniques at a mastery level including load flow, stability, fault and economic analysis in order to perform system studies; Western United States transmission and generation system adequacy and development Qualifications and inter-utility relationships; SMUD policies, procedures, applicable MOUs and other special agreements; methods and techniques for planning, organizing, and overseeing work activities; practices for delegating, assigning, and reviewing work assignments; techniques and concepts related to teamwork; methods and techniques for report preparation and writing; advanced techniques and practices for negotiating; advanced principles and practices of economic analyses of projects and programs; principles and practices of program evaluation; principles and practices of various analytical approaches; techniques and practices for problem research and resolution; techniques and practices for resolving complex technical issues; advanced principles, practices, and procedures related to power system operation; advanced power system theory; advanced thermal and hydroelectric generation and load management dispatch; systems and concepts related to economic operation of a power system; advanced planning and design techniques; principles related to short circuit evaluation; generator unit efficiency and capability characteristics; WECC/NERC Reliability criteria; AC/DC transmission systems; safety policies, practices, and procedures; standard operating procedures for modern office equipment including a computer and applicable software; principles and practices of database administration; principles and procedures of electronic records; English grammar, punctuation and vocabulary standards.

***Skill to:***

Perform system evaluations including transmission power flows, stability, fault, and other engineering studies; review, analyze, and comment on planning reports prepared by inter-utility work groups, WECC committees, regulatory bodies, and consultants; understand and handle the technical, political, and corporate issues that are subject to change; interact with others to influence and motivate; compile and prepare technical, statistical, and/or analytical reports and presentations; develop and conduct oral presentations to internal/external audiences; work effectively with other utilities and outside agencies to develop joint engineering projects; interpret, analyze, and apply pertinent policies, procedures, regulations, and requirements; identity significant organizational issues, concerns, and needs and develop strategies for rectifying them; interpret, analyze, and apply pertinent policies, procedures, regulations, and requirements; negotiate with external representatives on behalf of SMUD; utilize a personal computer and/or computer terminal, systems, and software relevant to the job; communicate effectively orally and in writing internally/externally; establish and maintain effective working relationships internally/externally.

***Education:***

A Bachelor’s degree from an accredited college or university with major course work in electrical engineering or related field.

***Experience:***

7 to 10 years of progressively responsible relevant work experience in electrical engineering for the power industry with 5 to 7 of those year involved in transmission system planning with project leadership, management, and outside agency interface and inter-utility project involvement.

***LICENSES AND/OR CERTIFICATIONS***

Registration as a Professional Electrical Engineer in the State of California is desirable.

***PHYSICAL CHARACTERISTICS***

Applicants must be able to perform the essential job functions with or without a reasonable accommodation.