

POSITION TITLE:

Manager of System Engineering

I. JOB SUMMARY

Provide leadership and supervision of the daily operations of System Planning, System Protection, and Substation Engineering. Provide support to Operations personnel with outage restoration, switching, device and equipment settings, and other key processes. Acts as the Cooperative's lead regarding generation interconnection, load forecasting, system reliability, load management, substation and line protection and control, substation design and maintenance planning, and distribution through transmission protection.

Lead and support the implementation of Engineering Services to other utilities and support overall Engineering strategy efforts. Supervise and support System Engineer(s), Protection and Control Engineer(s), and Field Engineer(s) in their daily activities. Manage relevant consultants in support of the department's responsibilities and provide technical support to the Manager of Engineering on special assignments.

II. POSITION STATUS

Supervisory (Second Line Supervisor)

REPORTING RELATIONSHIP:

Manager of Engineering

SUPERVISES

Yes

DEGREE OF SUPERVISION

- Position has line responsibility which is routine involving same or similar activities.

WORKS CLOSELY WITH

Internal: Manager of Engineering, Manager of Engineering Design, Manager of Operational and Technical Support, all other divisions of Corporate Operations.

External: Engineering consultants, power suppliers, other utilities (such as Black Hills Energy and Basin Electric Cooperative), and equipment suppliers.

III. KRA (KEY RESPONSIBILITY AREAS)

1. Engineering Studies and Reports
 - a. Take primary responsibility for the development of Load Forecasts, Long Range Plans, and Construction Work Plans.
 - b. Complete the design and construction plans for substation projects, in coordination with the Manager of Engineering Design.
 - c. Team performs annual Reliability Reports and recommends projects and actions to improve performance of worst performing feeders.
 - d. Team performs voltage and protection studies to maintain and improve overall system performance.
 - e. Team reviews and updates contingency plans and accommodations for transmission and distribution substations and feeders on a five-year rotation.
 - f. Team provides outage analysis reviews and root cause analysis reports for significant outages and other investigations as directed.
 - g. Team performs fault studies and provides fault analysis reports to members at members' request.
 - h. Maintain frequent communication with other departments, outside consultants and other organizations to ensure the accuracy and dependability of the major engineering studies and reports.

2. System Engineering
 - a. Ensure adequate voltage levels are maintained on the PRECorp system. Recommend system improvements needed to maintain adequate voltage and support load growth.
 - b. Evaluate requests for load additions and specify system improvements needed to maintain proper coordination, adequate voltage, line capacity and substation capacity.
 - c. Perform routine and special power quality (PQ) studies and investigations including voltage levels, customer voltage and flicker complaints, phase balancing, capacitor and voltage regulator applications, economic sizing of conductors and transformers.
 - d. Evaluate substation and substation equipment loading and recommend upgrades and/or additional substations needed.
 - e. Determine substation transformer tap settings, regulator settings, and recloser settings/programming.
 - f. Procure and/or direct the collection of field data for voltage and load surveys.
 - g. Team regularly reviews over and underloaded transformers and other devices as load changes on the system.
 - h. Provide project support and management.
 - i. Assist with budget and other engineering department activities.
 - j. Be familiar with the operation of all substation equipment and assist in the overall design requirements for substations.
 - k. Assist in the preparation and application of rate studies, load studies, line extension policies, power requirement studies, right-of-way and joint use practices, and other studies as required or assigned.
 - l. Provide engineering expertise and leadership in all areas of NERC.
 - m. Maintain a thorough knowledge of PRECorp's substations, transmission and distribution (overhead and underground) system.
 - n. Work closely with customers and ensure their electrical needs are met.
 - o. Keep informed of technical developments outside the Corporation through study of technical literature and attendance at appropriate meetings.
 - p. Develop or assist the development of reports and studies dealing with equipment and engineering design.
3. Supervision
 - a. Assist Manager of Engineering in interviewing, selecting and hiring department personnel as required.
 - b. Supervise the System Engineering Department. Provide administrative and technical support as well as direction to the team in completion of assigned tasks and duties.
 - c. Prepare performance evaluation of personnel under direct supervision annually and coach and assist employees throughout the year to help them in their development and improvement.
 - d. Approve time sheets, vacation, personal leave, etc. for those under direct supervision.
 - e. Develop training programs for personnel assigned and determine that all personnel under direction are thoroughly trained in accordance with the qualifications and requirements of their positions.
4. Relationships

Design

 - a. Work closely with the Project Supervisor Distribution on the feasibility of adding new loads, various and load transfer scenarios.
 - b. Work closely with the Manager Engineering Design on the development of new transmission lines and substations.
 - c. Work closely with the Lead Engineer on design and system requirements for new and special projects.

Program Manager

 - d. Works closely with PRECorp's Program Manager on the management of the CWP, Maintenance Program, and NERC\WECC requirements for System Planning.

Operations

 - e. Works closely with Operations, on the feasibility of adding new loads, various load transfer scenarios, system problems, protection schemes, and coordination of major projects.

Power Supplier

- f. Work closely with power supplier to ensure projects are coordinated in an orderly fashion.

Consultants

- g. Direct the activities and work closely with consultants to assure timely project completion.
- h. Review and approve technical information received from consulting engineers.

Suppliers

- i. Become familiar with new products and services within the industry.

Customers

- j. Provide technical support and other services that may be needed.

IV. MARGINAL DUTIES AND RESPONSIBILITIES

Administrative and Other Duties

- a. Keep current on all policies, procedures, rules, and regulations of the Cooperative that would have a direct effect on duties and responsibilities for this position. Recommend any changes that will improve the Cooperative's ability to better serve the department and the membership.
- b. Give prompt attention to all paperwork necessary to keep others well informed and expedite the accurate completion of all regular activities and special assignments.
- c. Prepare time sheets and turn in bi-weekly to immediate supervisor.
- d. Stand on call duty as part of the rotation of supervisor on call.
- e. Participate in educational activities, workshops and other programs to improve skills and abilities.
- f. Maintain a cooperative attitude and assist fellow employees whenever possible.
- g. Keep well informed regarding trends and new development in RUS operations, procedures and equipment and determine if improvements can be made.
- h. Keep immediate supervisor well informed and seek advice and counsel on special problems with which assistance is needed or that may require attention.
- i. Maintain vehicle(s) and equipment used during the performance of assigned duties (i.e. care, cleanliness and routine maintenance).
- j. Perform any other duties or activities that may be assigned or directed by management.

V. KNOWLEDGE, ABILITIES, AND SKILLS

- a. Ability to perform complex engineering analysis and planning for system specifications and requirements.
- b. Knowledge of transmission and distribution system operations.
- c. Ability to organize work and meet deadlines.
- d. Knowledge and experience in utilization of computer application for engineering functions. Working familiarity with Microsoft Word, Excel, PowerPoint, Outlook, Milsoft, DEW as well as other software applications utilized within PRECorp.
- e. Solid interpersonal and communication skills (verbal and written) and ability to be an effective member of a team are required.
- f. A high degree of integrity and the ability to handle confidential information will be required.

VI. MINIMUM REQUIRED EDUCATION AND EXPERIENCE

Bachelor of Science degree in Electrical Engineering with over five (5) years distribution and transmission utility experience in an engineering position, with emphasis on system planning.

LICENSES REQUIRED

Valid Driver's License

OTHER PROFESSIONAL LICENSES/CERTIFICATES NEEDED

Preferred:

To have, or the ability to obtain, a Professional Engineering license in good standing in the State of Wyoming within two (2) years from hire date.

VII. WORKING CONDITIONS

- a. Usual office conditions with ability to exert up to ten (10) pounds on a regular

- basis, as well as performing such activities as fingering, grasping, lifting, reaching, crouching, and repetitive tasks.
- b. Work is generally indoors and includes standing, walking, and sitting are normal to carrying out duties as well as the operation of PC, calculator, and other normal office machines.
 - c. Subject of being on-call as well as to be available quickly in the event of emergency.
 - d. Travel within the service area will be required on a regular basis.

VIII.REQUIRED SIGNATURES

This job description is intended to describe the general nature and level of work being performed by the person assigned to this position. Principal duties and responsibilities are intended to describe those functions that are essential to the performance of the job. Employees holding this position will be required to perform any other job-related duty as requested by management. All requirements are subject to possible modification to reasonably accommodate individuals with a disability.

Reviewed by Employee:

Signature: _____ Date: _____

Approved by Supervisor:

Signature: _____ Date: _____

Approved by Department Head:

Signature: _____ Date: _____

Approved by Chief Executive Officer:

Signature: _____ Date: _____