

POSITION TITLE: **System Engineer**

I. JOB SUMMARY

Provide support to the Manager of System Planning and Protection in developing transmission and distribution systems for Powder River Energy Corporation.

This role involves designing system protection plans, preparing sectionalizing studies, maintaining voltage levels, evaluating load additions, and developing contingency plans for substations. This position will have a BS Degree in Electrical Engineering, strong analytical skills, and knowledge of transmission and distribution system operations. This position requires regular travel within the service area and a valid driver's license.

II. REPORTING RELATIONSHIPS

- A. Reports to: Manager of System Planning and Protection
- B. Supervises: None
- C. Works Closely With: All departments
- D. Indirectly reports to the Designated Leader for all assigned areas related to PRECorp's Reliability Compliance Plan

III. PRINCIPLE DUTIES AND RESPONSIBILITIES

- A. System Planning
 - 1. Design system protection and coordination plan.
 - a. Prepares sectionalizing studies.
 - 2. Ensure adequate voltage levels are maintained on the PRECorp system. Recommend system improvements needed to maintain adequate voltage and support load growth.
 - 3. Evaluate requests for the load additions and specify system improvements needed to maintain proper coordination, adequate voltage, line capacity and substation capacity.
 - 4. Evaluate substation and substation equipment loading and recommend upgrades and/or additional substations needed.
 - a. Determine substation transformer tap settings, regulator settings and recloser settings/programming.
 - 5. Develop contingency plans for substations.
 - a. Develop load transfer plans for substation feeders.
 - 6. Work with the Manager of System Planning and Protection in preparation of long-range plans and construction work plans.
 - a. Identify system improvements needed for construction work plans and long-range plans.
- B. Assist with managing the development, implementation, monitoring, and

enforcement of the Reliability Standards Compliance Plan for their specific area of expertise or responsibility. These primary responsibilities include:

1. Provide strategic guidance and oversight, for the development, implementation, monitoring, and enforcement of the Reliability Standards Compliance Plan.
 2. Maintains awareness of and is knowledgeable in the areas of FERC, NERC, Regional Entities, reliability standards, compliance audits, compliance program management, communication, and employee education and training for the standard that they are assigned.
 3. Assists with the identification of matters of non-compliance and/or compliance violations.
- C. Operations
4. Be familiar with the operation of all substation equipment and assist in the overall design requirements for substations.
 5. Maintain a thorough knowledge of PRECorp's substations, transmission and distribution (overhead and underground) system.
 6. Assist in the emergency restoration of facilities during storm or general outages.
 - a. Predict locations of faults using fault current data from engineering analysis software.
 7. Develop or assist the development of reports and studies dealing with equipment and engineering design.

IV. MARGINAL DUTIES AND RESPONSIBILITIES

- A. System Planning
1. Procure and/or direct the collection of field data for voltage and load surveys.
 2. Provide project support and management.
- B. Operations
1. Work closely with members to ensure their electrical needs are met.
 2. Keep informed of technical developments outside the Corporation through study of technical literature and attendance at appropriate meetings.
 3. Assist with budget and other engineering department activities.
- C. Relationships (Under the supervision of the Manager of System Planning and Protection)
1. Power Supplier
 - a. Work closely with power supplier to ensure projects are coordinated in an orderly fashion.
 2. Consultants
 - a. Work closely with consultants to ensure timely project completion.
 - b. Review technical information received from consulting

engineers.

3. Suppliers
 - a. Become familiar with new products and services within the industry.
4. Members
 - a. Provide technical support and other services that may be needed.

D. Administrative and Other Duties

1. 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.
2. Give prompt attention to all paperwork necessary to keep others well informed and expedite the accurate completion of all regular activities and special assignments.
3. Prepare time sheets and turn in bi-weekly to immediate supervisor.
4. Participate in educational activities, workshops and other programs to improve technical skills and abilities as directed by management.
5. Keep immediate supervisor well informed and seek advice and counsel on special problems with which assistance is needed or that may require attention.
6. Keep well informed regarding trends and new development in RUS operations, procedures and equipment and determine if improvements can be made.
7. Maintain vehicle(s) and equipment used during the performance of assigned duties (i.e. care, cleanliness and routine maintenance).
8. 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 knowledge with Microsoft Word, Excel, PowerPoint, Outlook, Milsoft WindMil, and LightTable, 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.

G. A valid driver's license is required.

VI. EDUCATION AND EXPERIENCE

- A. BS Degree in Electrical Engineering with interest in system planning and coordination.
- B. Five (5) years of electrical engineering or related experience preferred.
- C. Ability to obtain a Wyoming PE license is preferred.

VII. WORKING CONDITIONS

- A. Usual office and field conditions with ability to exert up to twenty-five (25) 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 with continuous fieldwork requiring stamina to endure harsh climates and rugged terrain in Northeastern Wyoming. Also includes standing, walking, and sitting are normal to carrying out duties as well as the operation of PC, calculator, and other normal office machines. 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.

This job description does not state or imply that the above are the only duties and responsibilities assigned to this position. 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: _____ Date: _____
System Engineer

Reviewed by: _____ Date: _____
Manager of System Planning and Protection

Approved by: _____ Date: _____
Vice President of Engineering and Technical Services

Reviewed by: _____ Date: _____
Chief Executive Officer