



BENTON RURAL ELECTRIC ASSOCIATION

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A Touchstone Energy® Cooperative 

POSITION DESCRIPTION SYSTEM ENGINEER

I. OBJECTIVES

The position of System Engineer was created to help the purpose for which the Association was organized, which is:

Our mission at Benton Rural Electric Association, a member-owned and operated cooperative, is to provide affordable and reliable energy and other member-driven compatible services that enhance the quality of life for all of our members. Our mission will also provide a stable, safe, competitive career-oriented work environment for the Association's employees. Our mission is being pursued through the highest ethical standards using progressive marketing in conjunction with sound financial and management principles.

Benton REA intends to accomplish this mission by assigning specific engineering duties and responsibilities to be delegated to a competent, well-trained person whose knowledge of and ability in this position will contribute to the attainment of the current mission of the Association. This person must be adaptable, self-motivated, responsible, accountable, and energetic.

The specific objectives for this position and the responsibilities to be fulfilled to achieve the objectives include:

- A. Provides detailed engineering analysis to model system electrical parameters such as voltage drop, fault current, motor starting voltage dip and ensures through engineering analysis that construction of electrical facilities and resolution of problems are cost-effective and are implemented at the least possible cost, based on sound engineering analysis, and are constructed in coordination with the system long-range planning**
- B. Provides engineering analysis for load transfers and system coordination, and is responsible to maintain supportive information for complete and accurate records and statistical reports that are necessary to facilitate detailed analysis**
- C. Is responsible for collection of the data necessary for power scheduling purposes, and maintenance of the automated collection system, as well as the Association's system control and automated data acquisition system for remote system operation**
- D. Keeps the Engineering Manager properly informed as to project status so that the Engineering Manager may determine if results conform to established objectives,**

policies, work plans, budgets, and procedures.

II. RELATIONSHIPS:

A. Reports to: Engineering Manager, Secondary

Keeps the Engineering Manager informed concerning work progress and consults with the Engineering Manager on problems which hinder the efficient completion of the duties and responsibilities associated with the System Engineer position. Acts as a backup for the Engineering Manager in the absence of the Engineering Manager.

B. Directs:

- a) Meter Foreman
- b) Outside Contractors

C. Coordinates and cooperates with:

- a) Engineering Staff- to confer with, advise and assist as requested.
- b) Operations Manager and Superintendents - to confer with, advise and assist on operation problems or construction projects
- c) Office Staff - to confer with and assist as requested.

III. RESPONSIBILITIES

To fulfill the objectives of this position, the employee so designated shall be expected to perform any or all of the following duties and responsibilities:

A. Specific duties relative to Objective A: **Provides detailed engineering analysis to model system electrical parameters such as voltage drop, fault current, motor starting voltage dip, and ensures through engineering analysis that construction of electrical facilities and resolution of problems are cost-effective and are implemented at the least possible cost, based on sound engineering analysis, and are constructed in coordination with the system long-range planning.**

1. Responsible to develop and analyze system studies and recommends cost-effective system improvements.
2. Develops, in conjunction with the Association standards committee, engineering standards and specifications for construction and makes recommendations for the operations and maintenance of system facilities based upon results from engineering analysis.

3. Provides technical assistance and analysis when requested in all aspects of proposed line extensions.
 4. Provides assistance and specifications with regard to material and line equipment purchasing.
 5. Responsible for the system design and associated contracts required to provide service to major projects as assigned.
 6. Responsible for the preparation of system maps, drawings and profiles as necessary.
 7. Coordinates with consultants on assigned projects.
 8. Performs other functions as needed in order to accomplish this Objective.
- B. Specific duties relative to Objective B: **Provides engineering analysis for load transfers, and system coordination, and is responsible to maintain supportive information for complete and accurate records and statistical reports that are necessary to facilitate detailed analysis.**
1. Responsible for selection or development of computer programs necessary for engineering analysis.
 2. Responsible for development and maintenance of data necessary to perform analysis of the electrical system.
 3. Keeps informed of new engineering developments, technology, procedures and practices and makes recommendations of those that are applicable to the Association.
 4. Keeps informed on RUS requirements and regulations, and local and National codes and standards.
 5. Advises and assists the member and public with regard to engineering problems as requested.
 6. Attends and participates in management committees as assigned.
 7. Provides other engineering expertise and analysis as requested by the Engineering Manager or other departments.
 8. Coordinates with the billing department with regard to the development and retrieval of data required to facilitate analytical analysis of the electrical system.
 9. Operate and maintain in proper condition assigned tools, transportation and work equipment.
 10. Performs other functions as assigned.

C. Specific Duties related to Objective C: **Is responsible for collection of the data necessary for power scheduling purposes, and maintenance of the automated collection system, as well as the Association's system control and automated data acquisition system for remote system operation.**

1. Maintains protocol software, computer hardware, and the communications capability necessary for the retrieval, manipulation, and creation of data utilized as part of the Association's power scheduling function.
2. Maintains protocol software, computer hardware and communications necessary for the remote monitoring and operation of electrical equipment installed as part of the Association's system control and automated data acquisition system.
3. Performs other functions as assigned.

D. Specific duties relative to Objective D: **Keeps the Engineering Manager properly informed as to project status so that the Engineering Manager may determine if results conform to established objectives, policies, work plans, budgets, and procedures.**

1. Provides at least a weekly status report to the Engineering Manager with regard to current projects.
2. Acts as Engineering Manager during absences as directed.
3. Performs all other functions as assigned.

IV. **AUTHORITIES:**

The System Engineer shall have full authority to carry out the duties and responsibilities of this position in conformity with established policies and procedures and shall utilize time in such a way as to fulfill the objectives of this position and the organization.

This employee is encouraged to use initiative and judgment in making decisions, remembering that the Association's best interest can be affected by all actions. The employee should feel free to make suggestions for the improvement of operations and efficiency.

The employee shall secure the approval of the Engineering Manager in making decisions when policies are not clear and when further explanation is needed.

Nothing contained above should be construed to be a guarantee of or assurance of employment. Employees are expected to meet the standards of work performance and to perform their jobs competently, to maintain satisfactory interpersonal relations with co-workers as well as supervisors, and to conduct themselves appropriately in the work place.

Failure to meet these standards in the judgment of management may result in discipline, including discharge. Disputes resulting from implementation of this position description are subject to the provisions described in the most recent version of Association General Policy No. 614 - Dispute Resolution Procedure Non-Bargaining Unit.

RECEIVED BY: _____ DATE: _____
Employee

APPROVED BY: _____ DATE: _____
Supervisor

REVIEWED BY: _____ DATE: _____
General Manager/Executive Vice President

MINIMUM JOB QUALIFICATIONS
SYSTEM ENGINEER

I. REQUIRED SKILLS:

- A. Education Requirements - A bachelor of Science Degree (four-year degree) in Electrical Engineering.
- B. Must have a practical and common-sense approach to engineering solutions.
- C. Must be able to work with people, resolve differences in a positive and productive manner, and be willing to be a team player.
- D. Must have personal computer experience, and a working knowledge of AutoCAD, word processing, spreadsheet, and database software.
- E. Must have a thorough knowledge of standard utility construction and maintenance activities.
- F. Working knowledge of Federal and State electric, safety, and construction codes required.
- G. Previous supervisory experience of several employees required.
- H. Must have, or be able to obtain in a reasonable amount of time as specified by the Association, and maintain, a valid Washington State Driver's License. This item is required.
- I. Physical Requirements (Sufficient dexterity to perform the tasks as listed in the job description.).
 - 1. Physical Skills Level B (Noticeable) - Some physical skill is required. Certain coordinated finger, limb, or body movements must be performed in the course of regular work routines. These can usually be learned on the job over a relatively short period of time.
 - 2. Physical Effort Level 1 (Moderate) – Minimum physical exertion is required. Most job time is spent sitting with occasional walking. Occasional lifting and/or carrying of light weight materials or equipment.
 - 3. Sufficient dexterity to perform the tasks listed in the job description for this position is required.
 - 4. Talking in person and on mobile radio required.
 - 5. Listening in person and on mobile radio required.

6. Adequate near and far vision (driving) required.
7. Adequate color Vision (color coded wires) required.
8. Handling, fingering, working with hand tools. This item is required.
9. Adequate depth perception (driving) required.
10. Lift, carry, pull, and push items in excess of 20 pounds. This item is required.
11. Some travel may be required. May be asked to take occasional trips out of the Benton REA service area in order to attend training classes and seminars. These trips may require driving a vehicle that is provided by the Association.
12. The ability to speak, read, write, and communicate the English language fluently required.

II. PREFERRED SKILLS:

- A. Previous experience with an electrical distribution cooperative financed by the United States Department of Agriculture (USDA) Rural Utilities Service (RUS) - (Formerly known as the Rural Electrification Administration (REA) - is preferred.
- B. Previous experience in field staking according to RUS specifications- is preferred.
- C. Previous experience in utilizing software designed for the purpose of electrical system analysis, fault current calculation, voltage drop, and load analysis- is preferred.
- D. The ability to speak, read, write, and communicate the Spanish language fluently preferred.
- E. Previous experience in preparing construction work plans, long range studies, environmental reports and sectionalizing studies preferred.
- F. Working knowledge of RUS (REA) specifications, work order procedure system and design methods preferred.

III. WORK ENVIRONMENT:

- A. Work Demand Level B (Average) - Work pressure, disturbances of work flow, and/or irregularities in work schedule are expected and occur on an intermittent basis.
- B. Working Conditions Level 1 (good)- Generally good working conditions. Little or no exposure to extremes in noise, temperature, etc. Little or no exposure to safety or health hazards.

- C. Will be working in an office environment most of the time. The office environment is air conditioned or heated as needed. Some time may be spent traveling to job sites and performing field inspections.

Revised 12/5/17