



## Electrical Systems Engineer Job Description

<b>Department:</b>	General Manager
<b>Pay Scale:</b>	\$70,000 to \$105,000
<b>Exempt:</b>	No
<b>Reports To:</b>	General Manager
<b>Date Prepared:</b>	October 4, 2024
<b>Date Revised:</b>	
<b>Safety-Sensitive:</b>	Yes

**GENERAL DESCRIPTION OF POSITION:** Responsible, under the day-to-day supervision of the General Manager, for the planning and designing of the transmission and distribution systems and substations by performing the following duties.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES:**

1. Provide preliminary and detailed planning for construction projects.
2. Assist with the coordination of engineering work activities within and outside the utility, including long range planning studies and planning for construction projects.
3. Review technical issues with system personnel with respect to system design, replacement, and repairs.
4. Provide field observation for review of changes as needed on construction projects.
5. Maintain computer model of complete distribution and substation system; perform load flow and fault analysis on a routine basis; evaluating conductor sizes, fuse sizes, capacitor location, voltage regulation and phase balancing. Review current system data and trends.
6. Assist with the development of capital improvement plan (CIP); future growth studies, rate applications, impact fees, etc.
7. Coordinate with manufacturer's representatives regarding construction material specifications; approve related manufacturer material shop drawings.
8. Represent Company at bid openings and planning meetings as required.
9. Participate in on-the-job training programs and safety meetings as required.
10. Comply with recommended safety procedures and guidelines at all times, including wearing of proper safety equipment.

11. Operate a motor vehicle.
12. Work in a constant state of alertness and in a safe manner.
13. Subject to call-out.
14. Maintain the Supervisory Control and Data Acquisition System (SCADA).
14. Perform any other related duties as required or assigned.

### **QUALIFICATIONS**

To perform this job successfully, an individual must be able to perform each essential duty mentioned satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

### **EDUCATION AND EXPERIENCE**

Bachelor of Science from an ABET accredited university required in such disciplines as Computer or Electrical Engineering, plus 0 to 6 months or more related experience and/or training, or equivalent combination of education and experience.

### **COMMUNICATION SKILLS**

Ability to read, analyze, and understand general business/company related articles and professional journals; Ability to speak effectively before groups of customers or employees. Ability to write reports, business correspondence, and policy/procedure manuals; Ability to effectively present information and respond to questions from groups of managers, clients, customers, and the general public.

### **MATHEMATICAL SKILLS**

Ability to apply advanced mathematical concepts such as exponents, logarithms, quadratic equations, and permutations. Ability to apply mathematical operations to such tasks as frequency distribution, determination of test reliability and validity, analysis of variance, correlation techniques, sampling theory, and factor analysis.

### **CRITICAL THINKING SKILLS**

Ability to solve practical problems and deal with a variety of known variables in situations where only limited standardization exists. Ability to interpret a variety of instructions furnished in written, oral, or diagram formats.

### **REQUIRED CERTIFICATES, LICENSES, REGISTRATIONS**

Arkansas Registered Engineer Intern.

Must have a valid Arkansas Driver's License and meet the requirements of Benton Utilities insurance carrier.

### **PREFERRED CERTIFICATES, LICENSES, REGISTRATIONS**

Active professional trade association membership.

### **SOFTWARE SKILLS REQUIRED**

Intermediate: Alphanumeric Data Entry, Spreadsheet, Word Processing/Typing

Basic: 10-Key, Accounting, Contact Management, Database, Presentation/PowerPoint

## **INITIATIVE AND INGENUITY**

### **SUPERVISION RECEIVED**

Under general supervision where standard practice enables the employee to proceed alone on routine work, referring all questionable cases to supervisor.

### **PLANNING**

Considerable responsibility with regard to general assignments in planning time, method, manner, and/or sequence of performance of own work; may also occasionally assist in the planning of work assignments performed by others within a limited area of operation.

### **DECISION MAKING**

Performs work operations which permit frequent opportunity for decision-making of minor importance and also frequent opportunity for decision-making of major importance; the latter of which would affect the work operations of other employees and/or clientele to a moderate degree.

### **MENTAL DEMAND**

Moderate mental demand. Operations requiring almost continuous attention, but work is sufficiently repetitive that a habit cycle is formed; operations requiring intermittent directed thinking to determine or select materials, equipment or operations where variable sequences may be selected by the employee.

### **ANALYTICAL ABILITY / PROBLEM SOLVING**

Moderately structured. Fairly broad activities using moderately structured procedures with only generally guided supervision. Interpolation of learned things in somewhat varied situations.

### **RESPONSIBILITY FOR WORK OF OTHERS**

Responsibility for work of others: Not indicated.

### **RESPONSIBILITY FOR FUNDS, PROPERTY and EQUIPMENT**

Occasionally responsible for organization's property where carelessness, error, or misappropriation would result in moderate damage or moderate monetary loss to the organization. The total value for the above would range from \$5,000 to \$150,000.

### **ACCURACY**

Probable errors of internal and external scope would have a moderate effect on the operational efficiency of the organizational component concerned. Errors might possibly go undetected for a considerable period of time, thereby creating an inaccurate picture of an existing situation. Could cause further errors, losses, or embarrassment to the organization. The possibility for error is always present due to requirements of the job.

### **ACCOUNTABILITY**

#### **FREEDOM TO ACT**

Generally controlled. General processes covered by established policies and standards with supervisory oversight.

### **ANNUAL MONETARY IMPACT**

The amount of annual dollars generated based on the job's essential duties / responsibilities. Examples would include direct dollar generation, departmental budget, proper handling of organization funds,

expense control, savings from new techniques or reduction in manpower.

None. Job does not create any dollar monetary impact for the organization.

### **IMPACT ON END RESULTS**

Modest impact. Job has some impact on the organizations end results, but still from an indirect level. Provides assistance and support services that facilitates decision making by others.

### **PUBLIC CONTACT**

Regular contacts with patrons, either within the office or in the field. May also involve occasional self-initiated contacts to patrons. Lack of tact and judgment may result in a limited type of problem for the organization.

### **EMPLOYEE CONTACT**

Contacts of considerable importance within the department or office, such as those required in coordination of effort, or frequent contacts with other departments or offices, generally in normal course of performing duties. Requires tact in discussing problems and presenting data and making recommendations, but responsibility for action and decision reverts to others.

### **USE OF MACHINES, EQUIPMENT AND/OR COMPUTERS**

Occasional use of highly complex machines and equipment; specialized or advanced software programs.

### **WORKING CONDITIONS**

Periodically exposed to such elements as noise, intermittent standing, walking, occasionally pushing, carrying, or lifting; but none are present to the extent of being disagreeable.

### **ENVIRONMENTAL CONDITIONS**

The following work environment characteristics described here are representative of those an employee encounters while performing essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the functions of this job, the employee is occasionally exposed to work near moving mechanical parts, work in high, precarious places, fumes or airborne particles, outdoor weather conditions, wet or humid conditions, risk of electrical shock. The noise level in the work environment is usually loud.

### **PHYSICAL ACTIVITIES**

The following physical activities described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions and expectations. Moderate diversity, low physical. Work activities which allow for a moderate amount of diversity in the performance of tasks which are not as varied as those positions with high-level diversity and decision-making.

While performing the functions of this job, the employee is regularly required to sit, talk or hear; and frequently required to use hands to finger, handle, or feel; occasionally required to stand, walk, reach with hands and arms, climb or balance, stoop, kneel, crouch, or crawl, taste or smell. The employee must occasionally lift and/or move up to 100 pounds; frequently lift and/or move up to 10 pounds. Specific vision abilities required by this job include close vision; distance vision; color vision; peripheral vision; depth perception; and ability to adjust focus.

**ADDITIONAL INFORMATION**

Must maintain a personal telephone for call-out purposes, and carry a Corporation-provided cell phone.

Residency Requirement: Must live within Quick Response Boundary and be subject to being called out in case of an emergency or trouble. The Quick Response Boundary is defined as the area in which an employee can safely drive from home to Benton Utilities facility in 30 minutes or less.

**SAFETY SENSITIVE:** This is a SAFETY-SENSITIVE POSITION: A safety-sensitive position is a job or position where the employee holding this position has the responsibility for his/her own safety or other people's safety. Lack of attention in a safety-sensitive position can result in an incident that adversely affects the health or safety of employees, contractors, customers, the public, or the environment. An employee has to be with clear mind and diligent while occupying this position.

**Employee Acknowledgement:**

I hereby acknowledge receipt of the Job Description for my position. I have reviewed the Essential Job Functions and Duties with my supervisor and can perform the duties of job with or without reasonable accommodations.

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Employee Name (PRINT)

\_\_\_\_\_  
Employee Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Manager/Supervisor Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Human Resources Manager Signature

\_\_\_\_\_  
Date