



POSITION TITLE:	Electric Systems Engineer (I, II, Sr)	EXEMPT STATUS:	Exempt
DEPARTMENT:	Engineering & Operations	SALARY GRADE:	
LOCATION:	District Office 41630 W Louis Johnson Dr Maricopa, AZ 85138-5402	SALARY RANGE:	\$60,000 – \$105,000
REPORTING RELATIONSHIP:	Position reports to Director of Engineering & Operations	SUPERVISORY RESPONSIBILITY:	Position does not supervise at this time

DEFINITION:

The Electric Systems Engineer reports to the Director of Engineering and Operations and serves as a subject matter expert in electrical system design, maintenance planning, operations support, and other responsibilities as needed.

This position will be filled as level I, II, or Senior, based on qualifications and experience. The successful Senior Engineer will meet all requirements of this position description. Level I and II Engineers are not required to meet all listed requirements, but it is expected that such applicants be able to progress to the Senior level as he/she gains experience.

JOB SUMMARY:

Responsibilities for this position include but are not limited to:

- Design and/or direct contractors in the design of the District’s power systems,
- Preparation of drawings and specifications for the construction and installation of transmission and distribution equipment,
- Provide input to the annual capital budget for system improvements and additions,
- Verify system conformance with design and operational standards,
- Coordinate operation and maintenance activities to ensure optimum utilization of power system facilities and meet customer demands for electrical energy,
- Employ and comply with regulatory requirements,
- Develop and maintain procedures and documentation for all systems,
- Manage multiple, concurrent projects with unique demands,
- Act as a liaison between the District and its customers.

ESSENTIAL FUNCTIONS:

- Coordinate construction, operation, and maintenance of the District's electric power transmission lines and distribution systems, by planning and executing all key projects, including assigning staff and responsibilities, coordinating with other departments, and creating key project documents such as Gantt charts, resource loading and project status reports, and project
- Design/supervise the design of substations, distribution automation systems, SCADA, and other District assets,
- Coordinate Original Equipment Manufacturer (OEM) and vendor drawing review processes,
- Provide technical support for Substation equipment and SCADA systems,
- Perform analysis of system events and activities,
- Work with the District's Purchasing Department to provide material procurement and inventory management based on the approved District budget,
- Estimate labor, material, construction, and equipment costs,
- Perform Cost-Benefit Analyses for various proposed projects,
- Inspect and test completed installations for conformance with design and equipment specifications and safety standards,
- Assist the IT Supervisor to specify, operate, and maintain the Operational Technology (OT) assets associated with the electrical system in the field, substations, and the administrative offices,
- Develop and maintain standardized specifications and procedures to improve the District's processes and utilize a configuration management system for maintaining these documents,
- Deliver monthly reports on major project status, including percent completion,

ESSENTIAL QUALIFICATIONS:

Demonstrated abilities:

- Track record in managing operational growth,
 - Strong business planning and implementation skills,

Demonstrated knowledge of the following:

- Three-phase medium- and high-voltage power systems design and operation, including system protection principles,
- Protective relay configuration and operation utilizing Schweitzer Engineering Laboratories (SEL) equipment,
- SCADA system design and operation,
- Data communications protocols, including DNP3 and Modbus,
- Systems configuration management principles,
- Power systems equipment, including:
 - Power Transformers,
 - Electrical Switchgear,
 - Instrument Transformers,
 - Air Switches,
 - AC/DC Panelboards,
 - Station Service Batteries & Equipment,
 - Other ancillary system equipment.
- Computer system networking and cyber security principles,
- Knowledge of outage event analysis and power quality monitoring,
- Knowledge of metering and Automated Metering Infrastructure (AMI),
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SPECIAL REQUIREMENTS:

- Knowledge of GIS planning and data management,
- Knowledge of substation communications,
- Proficient with Microsoft Office software,
- Proficient with AutoCAD,
- Excellent client interaction skills.
- US Citizen or ability to legally work in the US,
- Strong troubleshooting and problem-solving skills,
- Able to communicate clearly, confidently, and professionally with contractors and coworkers (both technical and non-technical in nature),
- Must be willing to work long hours and weekends when required due to outages.

EDUCATION:

- Level I
 - Associates of Applied Science in Power Systems technology or other related field.
- Level II
 - Bachelor of Science in Electrical Engineering or related field.
- Senior
 - Bachelor of Science in Electrical Engineering or related field.

EXPERIENCE:

- Level I
 - Five years of experience in utility engineering-related field.
- Level II
 - Demonstrated knowledge of more than half of the requirements of this job description,
 - Five years of experience.
- Senior
 - Demonstrated knowledge of all the requirements of this job description,
 - Ten years of experience.

PHYSICAL REQUIREMENTS:

- Must pass employment drug screening test.
- Must be able to remain stationary for prolonged periods.
- Must be able to read color-coded information.
- Must possess a valid driver license.

WORKING CONDITIONS:

While performing the duties of this job, the employee is usually located in a typical office environment. Some work duties require the employee to be in the field or in electrical substations where electrical and thermal hazards exist. The employee will complete proper safety training for such environments.