

PROVO CITY CLASSIFICATION SPECIFICATION	
<b>Title:</b> Systems Electrical Engineer II	<b>Job Code:</b> 2711
<b>Date:</b> November 18, 2018	<b>EEO Code:</b> PR
<b>FLSA Designation:</b> Non-Exempt	<b>Civil Service Status:</b> Covered (UC)

**DEFINITION:** This is professional engineering work responsible to coordinate, plan, design, estimate, and prepare specifications for building electrical distribution/transmission systems.

**CLASSIFICATION STANDARDS:** Positions allocated to this classification are responsible to an assigned supervisor and perform all duties under very general direction. This work is distinguished by its emphasis on complex electrical systems analysis and operating efficiency, project support, planning, evaluation, budgeting, design, and construction management. *Note: Employees of this class are eligible for advancement to the next level in this career series as directed by policy.*

**ESSENTIAL DUTIES:** Supervise and provide system electrical engineering functions, including system analysis, planning, budgeting, engineering design, construction management, start-up, and troubleshooting; participate in department strategic planning, and recommend projects to improve and maintain system integrity, reliability and cost effectiveness; prepare specifications for electrical system design of project-associated equipment and construction services; engineer and design routing and layout of electrical transmission and distribution lines, substations, and related facilities; coordinate medium-size projects with Energy construction and maintenance crews, other utilities, private contractors, and developers; coordinate joint-use issues; maintain construction and reliability standards; perform field testing of operations and customer support for power quality and environmental issues; provide field inventory, project inspections, and general construction management support; coordinate and manage engineering design for assigned capital improvement projects (CIP) to ensure compliance with Energy project specifications and plans; coordinate consultant work schedule with City schedule for project efficiency and cost effectiveness; maintain full project cost accountability and regularly report project status; ensure that project as-built field sketches are secured and corrections/additions are made to the permanent electrical maps, records, and drawings upon project completion.

Perform and evaluate electrical system analysis and studies—both computer-based and manual—including load flow, short circuit, and load forecasting; provide protective relay and fuse coordination engineering, reviewing, and upgrading, as required; coordinate relay calibration and maintenance with the electrical maintenance supervisor; review and maintain electrical system model and coordinate regular upgrading of City-wide information base; recommend system operating procedures, and monitor effectiveness of procedures as implemented; perform the work of lower-level employees as required; assist other staff members as needed; perform other related duties as required.

**MINIMUM REQUIREMENTS:** Bachelor's Degree in Electrical Engineering or closely-related field and three (3) years of experience at Systems Electrical Engineer I level **OR** an equivalent combination of job-related education/experience [substituting each one (1) year of post-secondary education/training for six (6) months of experience].

**License(s)/Certifications:** A valid, lawful Driver's License is required. Fundamentals of Engineering (FE) Certificate is required.

**SELECTION FACTORS: Knowledge of:** electrical power theory and application to power system analysis and design; standard utility practices, the National Electrical Code, the National Electrical Safety Code; related laws, codes, rules, and regulations governing functions of the position; conducting and evaluating electrical systems analyses and studies, both manually and by computer; project planning, budgeting, engineering, design, and management; protective relay theory and application, relay testing skills, and system coordination; the operations, functions, and terminology common to the work; policies and procedures established for the work system; basic English composition, spelling, and grammar. **Skill In:** power/utility applications, including engineering, transmission design, distribution, substations, generation, and control; advanced engineering computations; interpersonal relations as applied to contact with contractors, outside agencies, and public officials; practicing trust-building behaviors. **Ability to:** prepare and present clear, concise, accurate, and informative complex reports; explain technical and engineering plans to non-technical officials and the public; plan and manage projects; prepare cost estimates; perform field analysis and engineering research; quickly and accurately perform work; exercise independent judgment while evaluating situations and in making determinations; develop and maintain effective working relationships with the public, coworkers, and superiors; perform duties in a manner that demonstrates respect, integrity, courtesy, and kindness towards fellow workers, customers, and the general public; work effectively on individual and team projects; demonstrate a high level of commitment to the principles of positive customer service; deal with the public in a pleasant, courteous, and calm manner in all circumstances; communicate effectively both verbally and in writing; evaluate programs and procedures; organize assigned work and develop effective work methods.

**TOOLS AND EQUIPMENT USED:** Computer-based mapping/electrical system analysis workstation, various engineering analysis software, printers, plotters, scanners, various meters, thermal imagers, power analyzers, survey equipment, telephone, radios, motor vehicle.

**PHYSICAL DEMANDS:** Requires sitting at a computer or desk for long periods, frequent walking over undeveloped ground, and physical strength and agility for lifting, bending, and stooping.

**ENVIRONMENTAL FACTORS:** Requires potential exposure to adverse weather conditions in all seasons, fumes, chemicals, energized electrical equipment, construction traffic, and noise. May also require exposure to high-stress situations or environments, including contact with the public in confrontational or uncomfortable circumstances. *Note: Employees of this class may be subject to on-call status. RESIDENCY: Employees of this class may be subject to Provo City residency requirements as demanded by the position.*

  
 Department Director

11/15/18  
 Date

  
 Mayor/Chief Administrative Officer

11/18/18  
 Date

**NOTE:** The above statements describe the general nature and level of work being performed by the person(s) assigned to this classification. They are not intended to be an exhaustive list of all duties, responsibilities, and skills required of personnel so classified. Class specifications are not intended to and do not imply or create any employment, compensation, or contract rights to any person or persons. Management reserves the right to add, change, or delete any and all provisions of this classification at any time as needed without notice. Reasonable accommodations may be made for otherwise qualified individuals who require and request such accommodation. This class specification supersedes earlier versions.