

**Utilities Commission  
City of New Smyrna Beach, Florida**

**Job Title:** Electrical Planning Engineer  
**Department:** Engineering  
**Reports To:** Engineering Director  
**Revised:** 03/2013  
**Pay Grade:** 34 Exempt

**Job Summary**

This is a highly responsible professional work providing electrical engineering support to the Utilities Commission's electric, water, reuse and pollution control utility operations and planning for short and long term system growth. As a member of the Engineering staff, this employee works with operating department personnel in the planning and execution of the electrical engineering requirements of the Commission's operating systems, reporting to the Director of Engineering. This employee also provides staff representation to various regulatory agencies, trade organizations and other utilities with which the Utilities Commission has and ongoing relationship.

**Essential Duties and Responsibilities include the following:** (Other duties may be assigned)

- Confers with operating department management personnel to determine and implement electrical engineering requirements
- Experience in Transmission Planning/Bulk Power Supply/FERC,NERC, FPSC, FRCC regulations.
- Perform annual compliance studies for NERC TPL and FAC Standards.
- Assists operations personnel in the maintenance and installation of relays, breakers, fuses and other protective devices in the electric system. Designs or assists in the design of protective relay schemes for transmission, distribution and generation. Calculates fault currents, load flows, and relay settings for the electric system.
- Prepares construction plans and specifications and reviews those prepared by others to determine their adequacy and sufficiency
- Reviews and/or designs panels and control schemes for electrical, water, reuse and pollution control systems
- Assists in the development and implementation of a program to integrate SCADA system requirements
- Establishes and maintains liaison with various regulatory agencies, trade organizations and other utilities. Provides information in response to questionnaires and submittals pertaining to generation requirements, planning, loads, future growth, and other planning information.
- Assists in planning for future activities related to the Commission's Load Management Program. Develops historical files and monitors costs for future efforts in that area. Assists in the development of energy conservation programs, for both internal and external use.
- Monitors and keeps track of permits and other documents which are incidental or necessary for the Utility systems.
- Assists in identifying the need for and processing easements and rights-of-way

- Supervises work of electric Service Planner as well as other Engineering Department personnel.
- Perform transmission/generation outage reliability studies; system impact studies; power flow analysis; loss studies; long term planning for Available Transfer Capability and ATC planning criteria; Generation and transmission regulatory performance; Coordinate Transmission Planning's participation in regional and inter-regional planning activities.
- Coordinates with other utilities in the State of Florida, as well as those in the neighboring states, on studies and projects for optimized reliability of interconnected operations through Florida Reliability Coordinating Council (FRCC). Prepares or supervises the preparation of reports for regulatory agencies in matters of integrated planning which includes the utility plans of supply side and demand side options. Works with consulting engineers and other department staff to conduct studies on behalf of the department. Performs or supervises strategic planning assessments to identify long-range business opportunities and partnerships. Represent the UC on the FRCC Planning Committee and other committees as required.

**Competencies** - To perform the job successfully, an individual should demonstrate the following competencies:

- A. *Quality Management*** - Demonstrates accuracy and thoroughness.
- B. *Problem Solving*** - Identifies and resolves problems in a timely manner; Gathers and analyzes information skillfully.
- C. *Dependability*** - Follows instructions, responds to management direction; Takes responsibility for own actions; Keeps commitments.
- D. *Planning/Organizing*** - Prioritizes and plans work activities; Uses time efficiently; Plans for additional resources.

**Qualifications** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**A. *Language Skills***

Ability to read, analyze, and interpret general business periodicals, professional journals, technical procedures, or governmental regulations. Ability to write reports, business correspondence, and procedure manuals. Ability to effectively present information and respond to questions from groups of managers, clients, customers, and the general public.

**B. *Mathematical Skills***

Ability to work with mathematical concepts such as probability and statistical inference, and fundamentals of plane and solid geometry and trigonometry. Ability to apply concepts such as fractions, percentages, ratios, and proportions to practical situations.

**C. *Reasoning Ability***

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

**D. *Computer Skills***

Must be able to use and understand the required programs and software for this position including AutoCAD, Microsoft and MS Office.

**Other Skills and Abilities**

- This employee will be expected to become familiar with the use of electric power for water, reuse and pollution control systems and to assist in the development of programs to improve the load factors and to minimize operating costs as related to these systems.
- This employee will be expected to become familiar with instrumentation common to water, reuse and pollution control facilities and to assist in the implementation of changes of or improvements to existing instrumentation which can be expected to improve the operation and maintenance of such facilities.
- Employee should be capable of writing specifications and reports and shall be competent to assist in the development of forms, definition of scope for purchase requisitions, assist in the development of agenda items, and assist in the development of new or revised tariffs and specifications for communication equipment.
- The employee must be familiar with and proficient in the use of UC computers and associated software systems. Must be able to maintain effective relationships with the public, associates and contractors.
- Proficient in the use of Siemens PSS/E – Transmission System analysis and Planning and Milsoft Windmill (or equivalent).
- Employee should be capable of assisting in the implementation of systems designed for data acquisition, remote surveillance, and methods of telemetry and control and will be expected to become familiar with all aspects of the Load Management Program wherein the Utilities Commission has direct control of the use of power by the Commission's customers.
- Employee must be able to perform transmission/generation outage reliability studies, system impact studies, power flow analysis, loss studies, long-term planning for Available Transfer Capability and ATC planning criteria. Generation and Transmission regulatory performance: coordinates Transmission planning's participation in regional and inter-regional planning activities.
- Must be proficient in the use of Siemens PSS/E – Transmission System Analysis and Planning.
- Coordinates with other utilities in the state of Florida, as well as those in the neighboring states, on studies and projects for optimized reliability of interconnected operations through Florida Reliability Coordinating Council (FRCC). Prepares or supervises the preparation of reports for regulatory agencies in matters of integrated planning which includes the utility plans of supply side and demand side options. Works with consulting engineers and other department staff to conduct studies on behalf of the department. Performs or supervises strategic planning assessments to identify long-range business opportunities and partnerships.
- Works closely with Operations on design and inspections to be cost effective and support Customer Service.
- Performs related work as required.

**Physical Demands** - The physical demands 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.

While performing the duties of this Job, the employee is regularly required to sit; use hands to finger, handle, or feel and talk or hear. The employee is frequently required to reach with hands

and arms. The employee is occasionally required to stand; walk; climb or balance and stoop, kneel, crouch, or crawl. The employee must occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision and distance vision.

**Education and Experience**

BS Degree in Electrical Engineering with a power option. Must have 10 years of experience.

**Certificates, Licenses, Registrations**

PE required. Valid Florida driver's license required.

**Other Qualifications**

Position is subject to driver's license record checks. Ability to work flexible hours as required. Must pass background check. Must attend and successfully complete all mandated trainings. Subject to the UC's Drug Free Workplace Program.